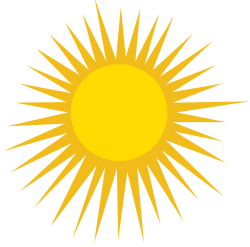


ACTIVE TRANSPORTATION PLAN

# Ride & Stride 2050



Final  
April 2024



metroplan orlando  
A REGIONAL TRANSPORTATION PARTNERSHIP



*This page intentionally blank*

# Ride & Stride 2050

## ACTIVE TRANSPORTATION PLAN

### Table of Contents

<b>Executive Summary</b> .....	<b>1</b>
What is an ATP? .....	1
Process Highlights .....	1
Policies and Goals Highlights.....	2
Planned Network .....	2
<b>Existing Conditions</b> .....	<b>8</b>
Facility Types.....	8
Existing Network .....	12
Level of Traffic Stress and Pedestrian Level of Comfort .....	16
Accessibility and Comfort Analysis .....	19
<b>Network Development</b> .....	<b>23</b>
Planned Project Network.....	23
New and Enhanced Project Networks .....	23
Refinement of ATP Project Networks .....	24
Project Recommendations.....	25
ATP Toolbox.....	26
Future Accessibility and Comfort.....	33
<b>Prioritization</b> .....	<b>40</b>
Description of Prioritization Criteria and Process.....	40
Prioritized Needs List .....	43
<b>Active Transportation Policy</b> .....	<b>45</b>
Review of Existing Policies .....	45
Policy Recommendations.....	46

### Appendices (Under Separate Cover)

- Appendix A: Existing Conditions
- Appendix B: 2050 ATP Accessibility Analysis
- Appendix C: Project Development Process
- Appendix D: ATP Projects and Existing Planned Project Enhancements
- Appendix E: Public Engagement Summary
- Appendix F: Active Transportation Toolbox of Strategies
- Appendix G: Prioritization Criteria Approach
- Appendix H: Policy Recommendations

# Ride & Stride 2050

## ACTIVE TRANSPORTATION PLAN

### List of Figures

Figure 1: 2050 ATP Regional Network .....	3
Figure 2: 2050 ATP Orange County Network .....	4
Figure 3: 2050 ATP Orange County Network Insets .....	5
Figure 4: 2050 ATP Osceola County Network .....	6
Figure 5: 2050 ATP Seminole County Network.....	7
Figure 6: Existing Facility Types #1.....	10
Figure 7: Existing Facility Types #2.....	11
Figure 8: Existing On-Street Bicycle Facilities .....	13
Figure 9: Existing Off-Street Facilities.....	14
Figure 10: Existing Pedestrian Facilities.....	15
Figure 11: Visual Depiction of Level of Traffic Stress.....	16
Figure 12: Visual Depiction of Pedestrian Level of Comfort .....	17
Figure 13: Existing Network Bike Access & Comfort Summary ...	21
Figure 14: Existing Network Pedestrian Access & Comfort Summary.....	22
Figure 15: Planned On-Street Bicycle Facilities .....	27
Figure 16: Planned Off-Street Facilities.....	28
Figure 17: 2050 ATP Projects Orange County .....	29
Figure 18: 2050 ATP Projects Orange County Insets .....	30
Figure 19: 2050 ATP Projects Osceola County .....	31
Figure 20: 2050 ATP Projects Seminole County.....	32
Figure 21: Planned Network Bike Access & Comfort Summary...36	
Figure 22: Planned Network Pedestrian Access & Comfort Summary.....	37
Figure 23: 2050 ATP Network Bike Access & Comfort.....	38
Figure 24: 2050 ATP Network Pedestrian Access & Comfort Summary.....	39

### List of Tables

Table 1: Miles of MPO Facilities by Posted Speed of Road.....	12
Table 2: Existing LTS Score for MPO Network by Bicycle Facility Type (in miles of facility).....	18
Table 3: Existing PLOC Score for MPO Network by Pedestrian Facility Type (in miles of facility) .....	18
Table 4: Miles of Planned Facility Types on MPO Network.....	23
Table 5: 2050 ATP LTS Score for MPO Network by Bicycle Facility Type (in miles of facility).....	33
Table 6: 2050 ATP PLOC Score for MPO Network by Pedestrian Facility Type (in miles of facility) .....	33
Table 7: With 2050 ATP Summary of Percent Change in Travel Access Via Predominately Low-Stress Networks* - 15 Minute Travel Time.....	34
Table 8: With 2050 ATP Summary of Percent Change in Travel Access Via Predominately Low-Stress Networks* - 30 Minute Travel Time.....	34
Table 9: With 2050 ATP Travel Access Summary Via Predominately Low-Stress Network* - 15 Minute Travel Time.....	34
Table 10: With 2050 ATP Future Travel Access Summary Via Predominately Low-Stress Network* - 30 Minute Travel Time.....	35
Table 11: ATP Evaluation Criteria.....	41
Table 12: Preliminary Top Ranked Active Transportation Needs List.....	43



# Executive Summary

The MetroPlan Orlando Regional Active Transportation Plan (ATP): Ride & Stride 2050 is a roadmap to enhance active transportation options on the MPO Roadway Network throughout Orange, Osceola, and Seminole Counties. The 2050 Active Transportation Plan (2050 ATP) is based on three key objectives:

1. Improve transportation safety outcomes for vulnerable road users, including pedestrians, bicyclists, and other non-auto transportation system users.
2. Identify a regional active transportation network that complements other travel modes, especially transit, and supports future land use patterns.
3. Develop a feasible project list to incorporate into the 2050 Metropolitan Transportation Plan.

Throughout this document, all references to pedestrians are inclusive of persons with disabilities who use mobility aids (i.e., scooters, and manual or electric wheelchairs) to access public pedestrian walkways.

## What is an ATP?

Active transportation refers to human-powered modes of travel like walking and biking. An Active Transportation Plan focuses on developing a comprehensive set of strategies to provide better options for walking and bicycling, including access to transit.

ATPs typically identify infrastructure, policies, and processes based on public and stakeholder input to achieve the desired goals.

## Process Highlights

The ATP was developed through four main components:

- Analyzing existing conditions
- Identifying future project needs and developing a future network
- Applying prioritization criteria to develop a prioritized needs list
- Development policy and strategy recommendations

The existing conditions analysis is based on evaluating the public's comfort level using existing facilities and determining how accessible certain destinations are via these networks. Once the existing planned facilities were confirmed with regional partners, an additional analysis of comfort, accessibility, and safety was conducted to identify gaps in the network and develop the preliminary 2050 ATP Project List. The list includes new projects as well as enhancements to planned projects, such as incorporating a side path into a planned road widening.

Projects from the 2050 ATP Project List were ranked based on the prioritization criteria developed in collaboration with the



Steering Committee. Projects were scored based on factors such as transportation disadvantage, safety, and comfort.

New policies and a toolbox of active transportation strategies were developed to help guide future active transportation projects in the region.

## Policies and Goals Highlights

The MetroPlan Orlando region is made up of three counties and 22 incorporated cities and towns. Relevant plans and policies from these jurisdictions were reviewed to identify potential barriers to ATP implementation and identify policy guidance that could be incorporated into future plans. While partner agencies tend to have policies supportive of active transportation, this plan includes new policy language around the following topics:

- ADA Compliance
- Active Transportation Count Programs
- Micromobility Regulations
- Bicycle Facility Selection

## Planned Network

Based on the technical analysis and the feedback from partner agencies and the public, a final list of 2050 ATP Projects was developed, which includes 253 projects in the following general categories, including 105 enhancements to already planned projects and 148 new projects:

- 3 existing bicycle lane modifications
- 47 bicycle lane enhancements to already planned projects
- 4 bicycle bridges/tunnels
- 65 new corridor projects, which include adding or widening bike lanes, adding side paths, speed management, and/or a safety focus
- 20 enhancements to already planned corridor projects.
- 7 new trail segments
- 5 trail gap closures
- 25 enhancements to already planned trail crossing projects
- 7 new trail crossing improvements
- 57 new intersection improvements, some with a signing, striping & signal timing focus, and others with reconfiguration elements, such as reducing curb radii, adding pedestrian refuge islands, and providing directional curb ramps
- 10 enhancements to already planned intersection improvements
- 3 enhancements to already planned trail crossing improvements

**Figure 1** shows the 2050 Regional ATP Network, **Figure 2** shows network in Orange County, **Figure 3** provides additional detail on the network in Orange County, **Figure 4** shows the Osceola County network and **Figure 5** shows the Seminole County network.



FIGURE 1

# 2050 ATP Regional Network

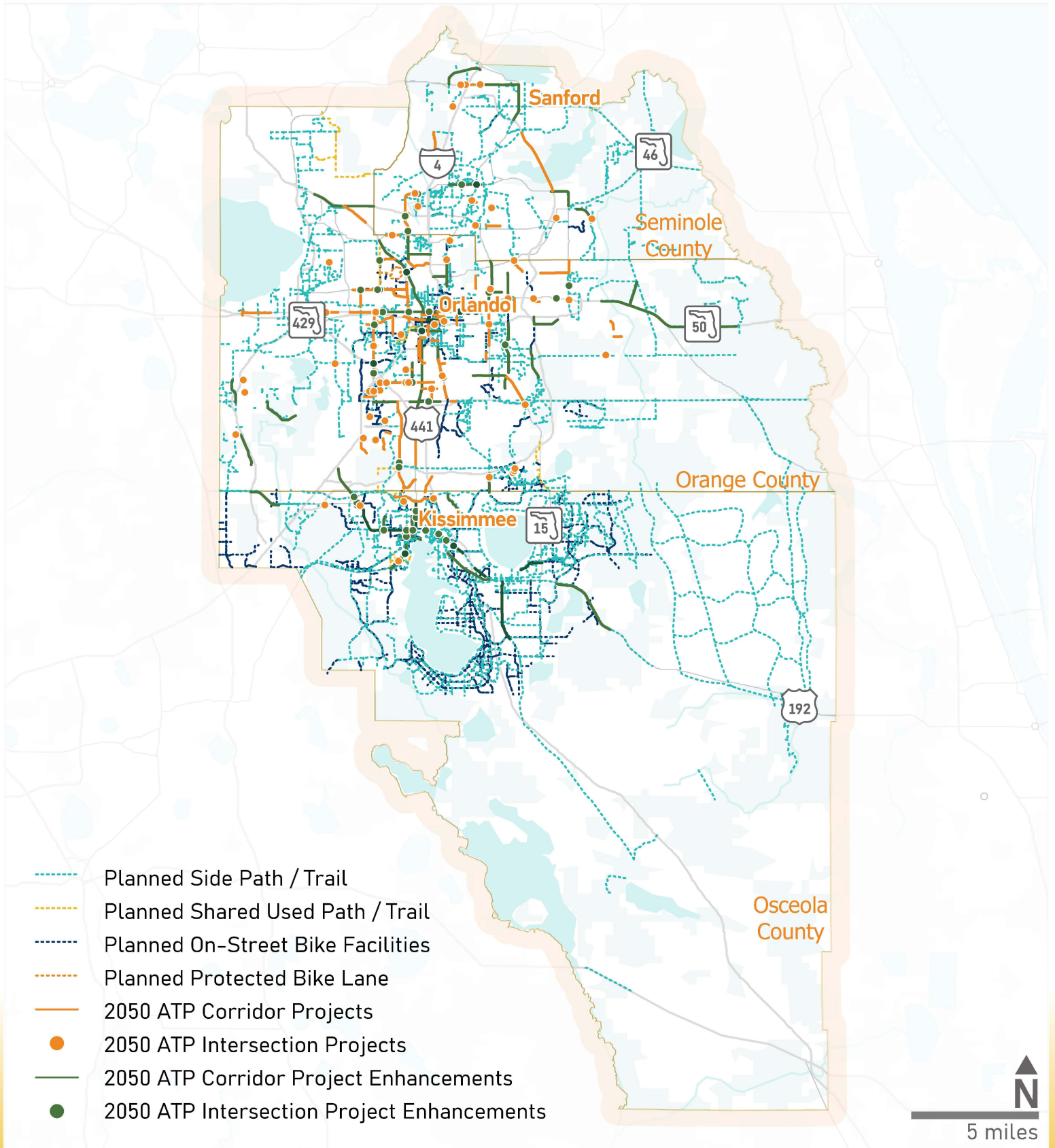




Figure 2

# 2050 ATP Orange County Network

- Planned Side Path / Trail
- Planned Shared Used Path / Trail
- Planned On-Street Bike Facilities
- Planned Separated Bike Lane
- 2050 ATP Corridor Projects
- 2050 ATP Intersection Projects
- 2050 ATP Corridor Project Enhancements
- 2050 ATP Intersection Project Enhancements

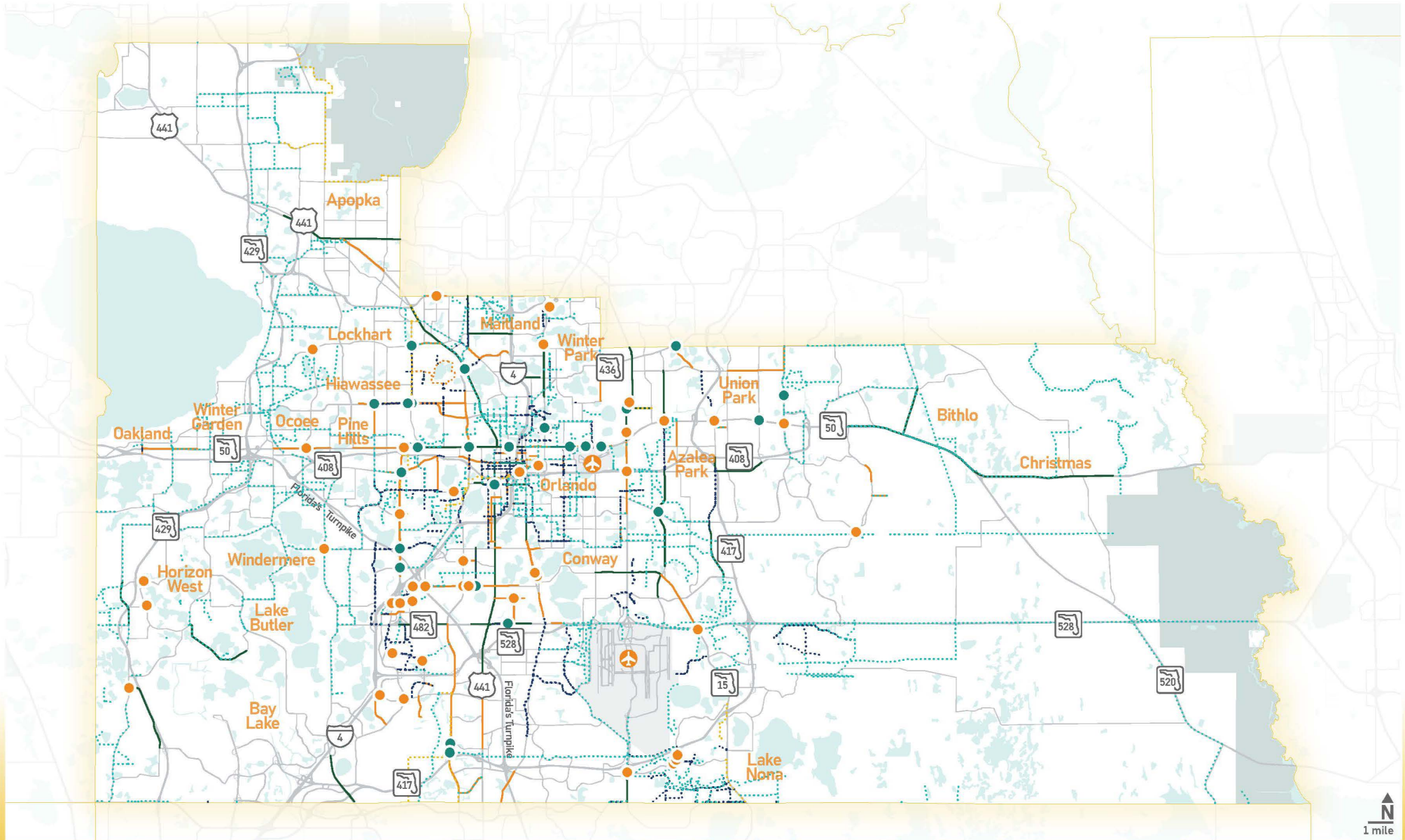
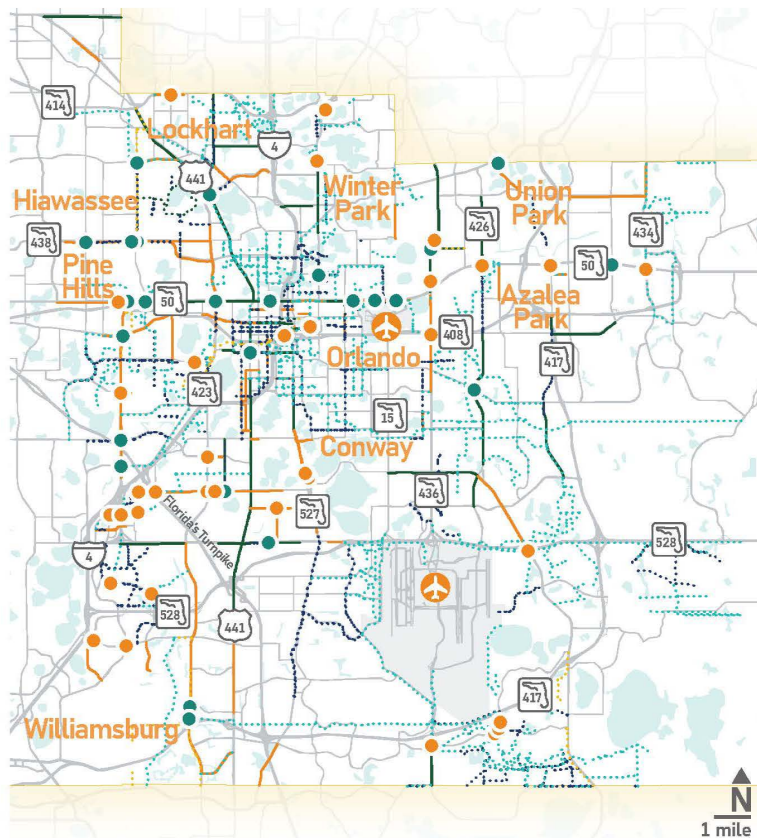
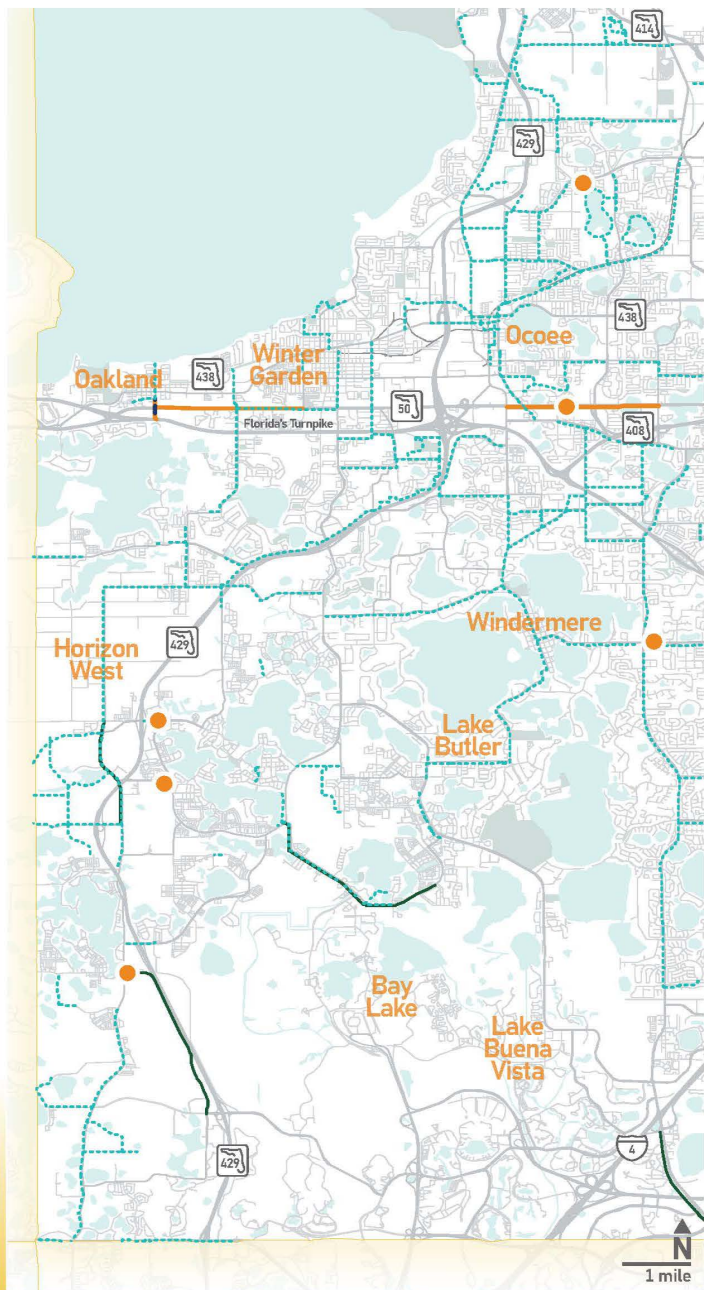






Figure 3

# 2050 ATP Orange County Network Insets



- Planned Side Path / Trail
- Planned Shared Used Path / Trail
- Planned On-Street Bike Facilities
- Planned Separated Bike Lane
- 2050 ATP Corridor Projects
- 2050 ATP Intersection Projects
- 2050 ATP Corridor Project Enhancements
- 2050 ATP Intersection Project Enhancements





Figure 4

# 2050 ATP Osceola County Network

- Planned Side Path / Trail
- Planned Shared Used Path / Trail
- Planned On-Street Bike Facilities
- Planned Separated Bike Lane
- 2050 ATP Corridor Projects
- 2050 ATP Intersection Projects
- 2050 ATP Corridor Project Enhancements
- 2050 ATP Intersection Project Enhancements

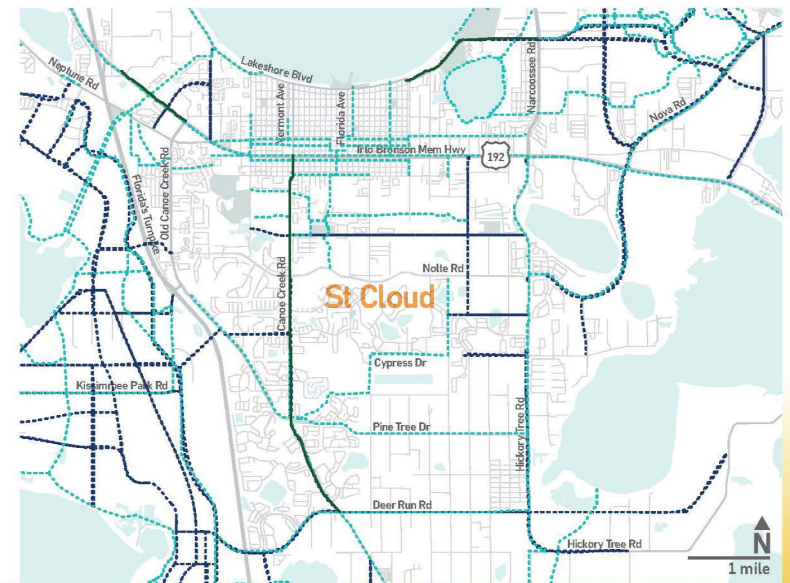
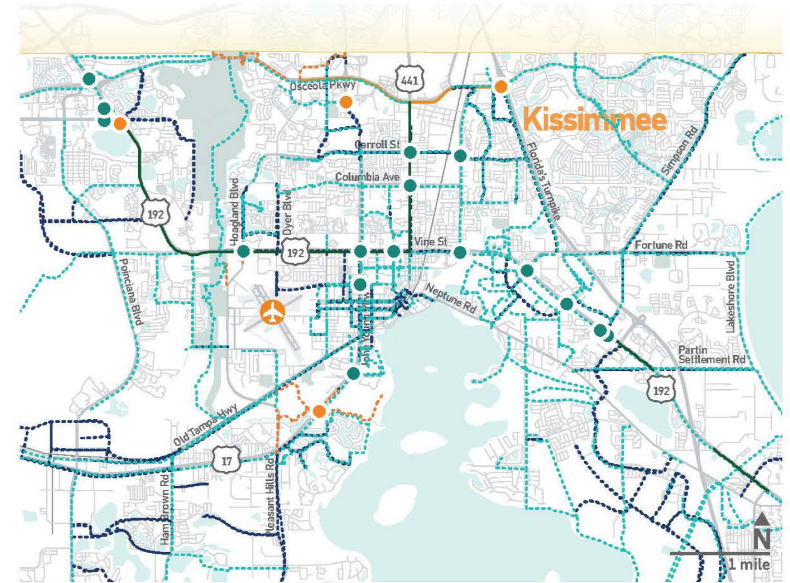
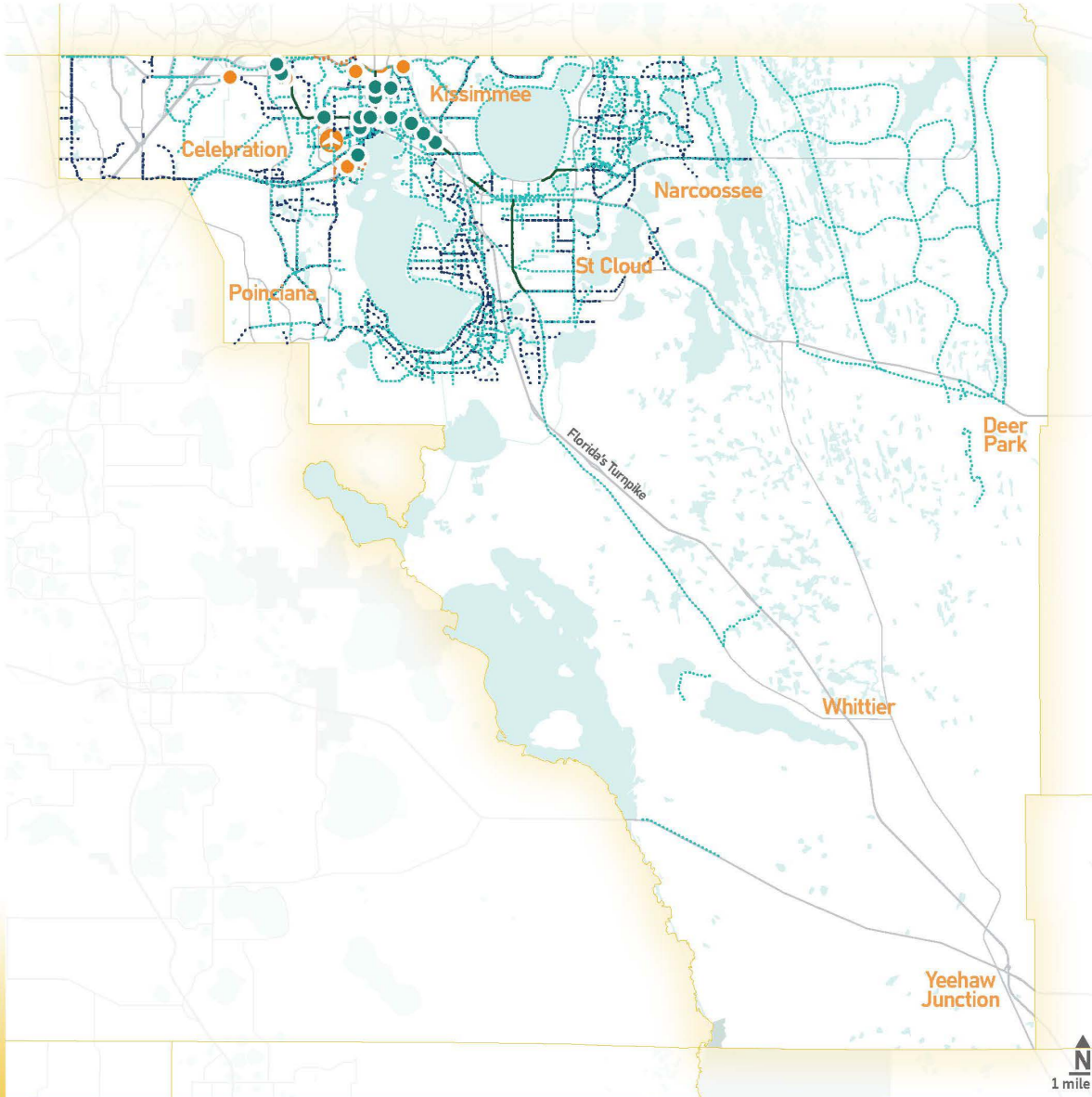
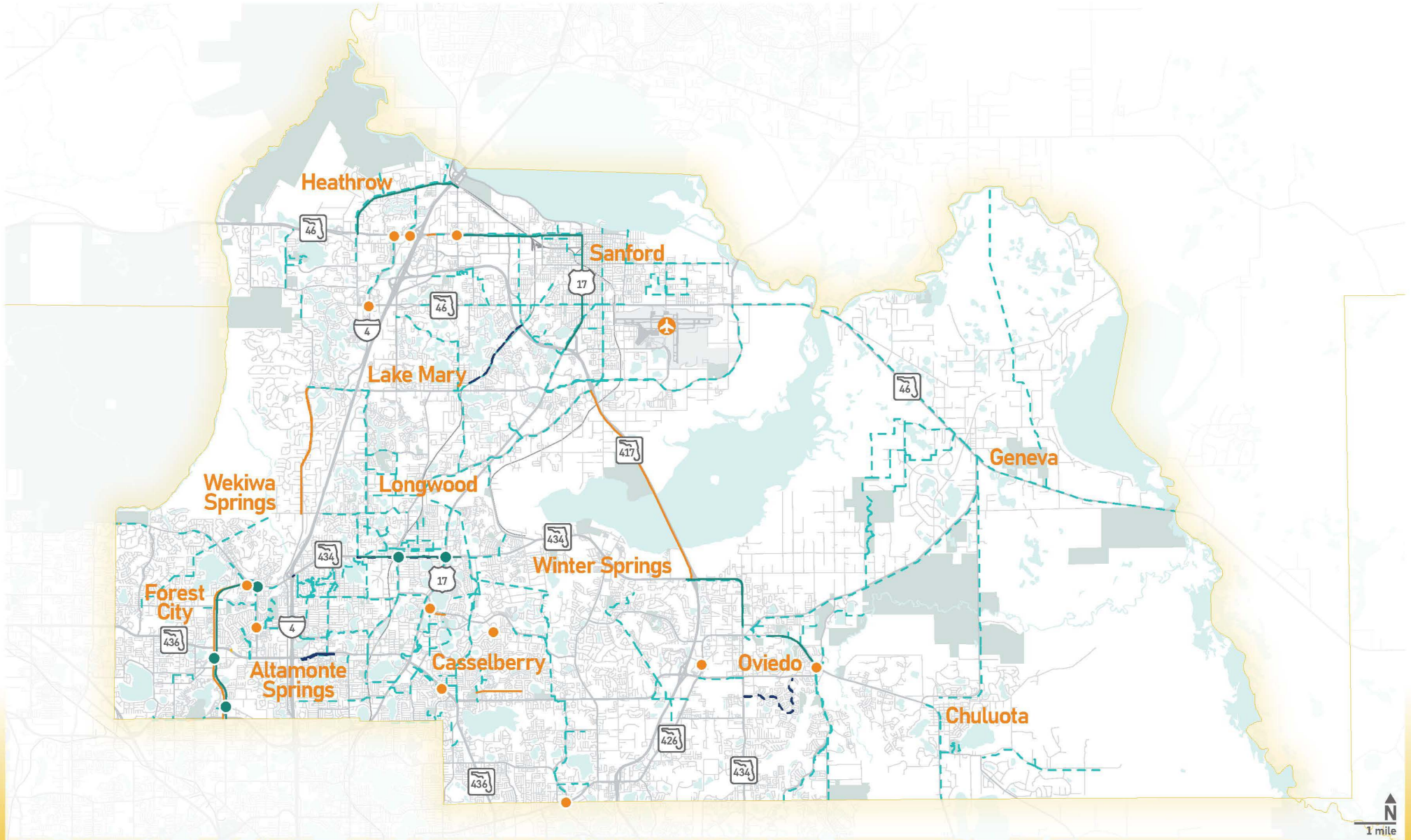




Figure 5

# 2050 ATP Seminole County Network

- Planned Side Path / Trail
- Planned Shared Used Path / Trail
- Planned On-Street Bike Facilities
- Planned Separated Bike Lane
- 2050 ATP Corridor Projects
- 2050 ATP Intersection Projects
- 2050 ATP Corridor Project Enhancements
- 2050 ATP Intersection Project Enhancements



# Existing Conditions

This section summarizes existing bicycle and pedestrian facilities in the region. More details can be found in [Appendix A: Existing Conditions](#).

## Facility Types

There is a wide variety of pedestrian and bicycle infrastructure in the region, including on-street bike lanes, paved shoulders, sidewalks, off-street shared use paths/trails, and side paths. These facilities are identified in this Plan, with images and descriptions provided for each facility type. The descriptions are built on the facility type definitions provided by the Federal Highway Administration (FHWA) and the Florida Department of Transportation (FDOT) to reflect the local context and existing built environment, with detailed cross sections of different facility types and their local naming conventions shown on [Figure 6](#) and [Figure 7](#). Sidewalks and wide shoulders that are not designated as bicycle facilities but may be considered a bike facility by road users are also reflected in this plan.

### Trails (Shared Use Path or Side Path)

**Shared Use Path/Trail:** Provides a separate right-of-way and is generally designated for the exclusive use of people walking and bicycling with minimal roadway crossings ([Figure 6](#)).

**Side Path/Trail:** Provides a separate right-of-way and is designated for the exclusive use of bicycles and pedestrians. Side

paths/trails are adjacent to, but separated from, the roadway and may cross driveways and roadways ([Figure 6](#)).

### On-Street Bicycling Facilities

**Bike Lane:** Provides an exclusive bicycle facility adjacent to a roadway and distinct from the sidewalk ([Figure 7](#)).

**Wide Bike Lane:** Provides an exclusive bicycle lane separated from the roadway by a painted buffer and distinct from the sidewalk. This may also be referred to as a buffered bike lane, but no physical elements are provided to separate the bike facility from the vehicle lane ([Figure 7](#)).

**Separated Bike Facility:** Provides an exclusive bicycle facility physically separated from the roadway and distinct from the sidewalk. Separated bicycle facilities can be one-way or two-way, and may be at street level, sidewalk level, or in between ([Figure 6](#)).

**Protected Bike Lane:** Provides an exclusive bicycle lane physically separated from the roadway with a vertical barrier and is distinct from the sidewalk ([Figure 7](#)).

**Paved Shoulder (Unprotected Bike Lane):** Paved shoulders are wide (4 feet or greater) shoulders on the edge of a roadway that can be used by cyclists. Paved shoulders are typically provided as bicycle facilities in rural contexts.

## Sidewalk Types

**Sidewalk:** Sidewalks are physically separated from the roadway and primarily designed for pedestrian use (see image to right), although bicyclists are also permitted to use them. The standard sidewalk width is 6 feet. Older sidewalks or sidewalks in constrained areas may be narrower.

**Wide Sidewalk:** This type of facility is physically separated from the roadway and typically 8-foot wide, wider than a standard 6-foot sidewalk but narrower than a 10-foot shared use path. While it is primarily intended for pedestrian use, it can also be used by cyclists (**Figure 7**).

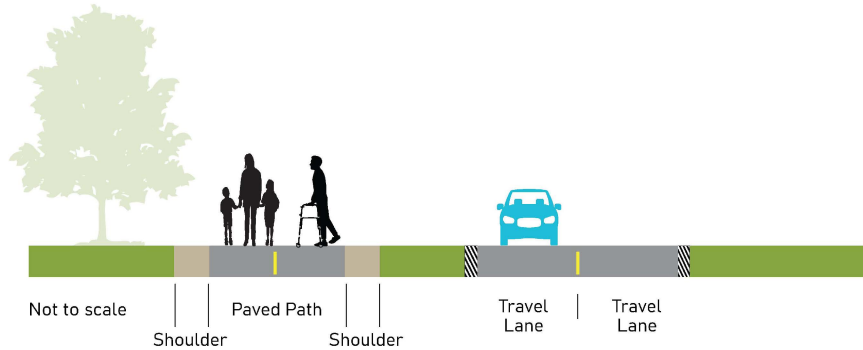
**Downtown Sidewalk:** Downtown sidewalks are physically separated from the roadway. While they may be wider than a standard 6-foot sidewalk, they often have other elements including street furniture, landscaping, outdoor seating/retail use, etc. Downtown sidewalks should have a space at least 5-feet wide that is unobstructed and dedicated for walking space. While cyclists may use the sidewalk, it is primarily intended for pedestrian use (**Figure 7**).





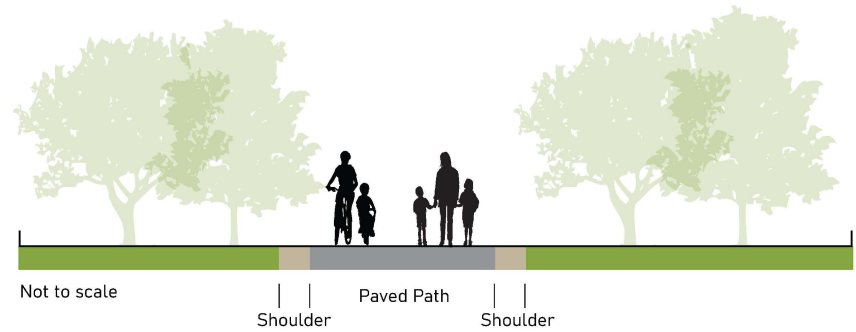
# FIGURE 6 Facility Types

## SIDE PATH / TRAIL



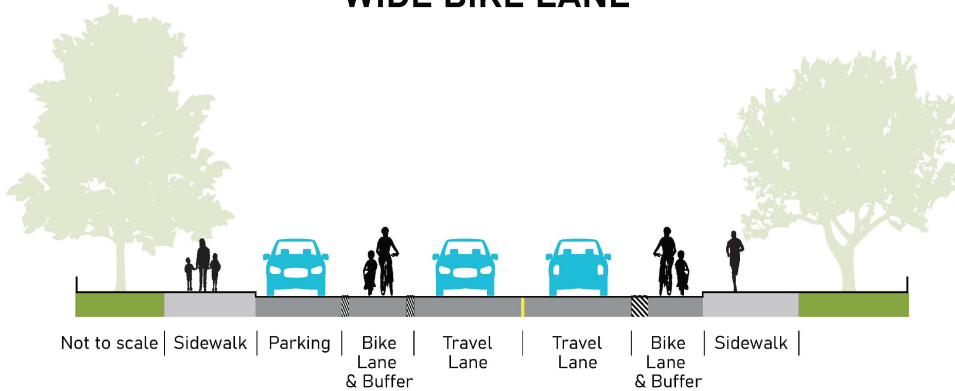
Key Elements: Provides a separate right-of-way and is designated for the exclusive use of bicycles and pedestrians. Side Paths/Trails are adjacent to, but separated from, the roadway and may cross driveways and roadways.

## SHARED USE PATH / TRAIL



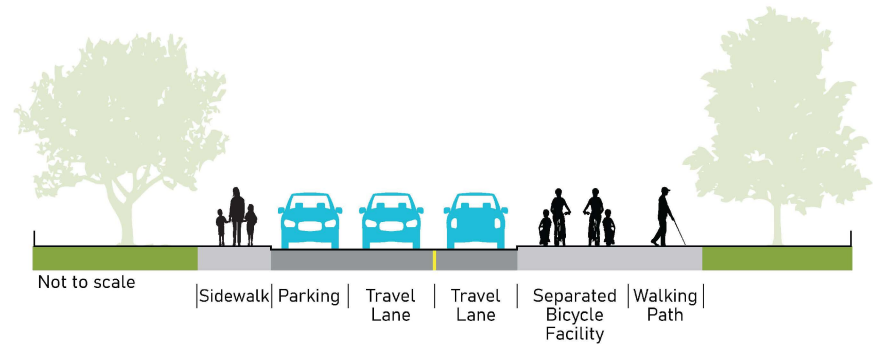
Key Elements: Provides a separate right-of-way and is generally designated for the exclusive use of people walking and bicycling with minimal roadway crossings.

## WIDE BIKE LANE



Key Elements: Provides an exclusive bicycle lane that is separated from the roadway by a painted buffer and is distinct from the sidewalk. This may also be referred to as a buffered bike lane, but no physical elements are provided to separate the bike facility from the vehicle lane.

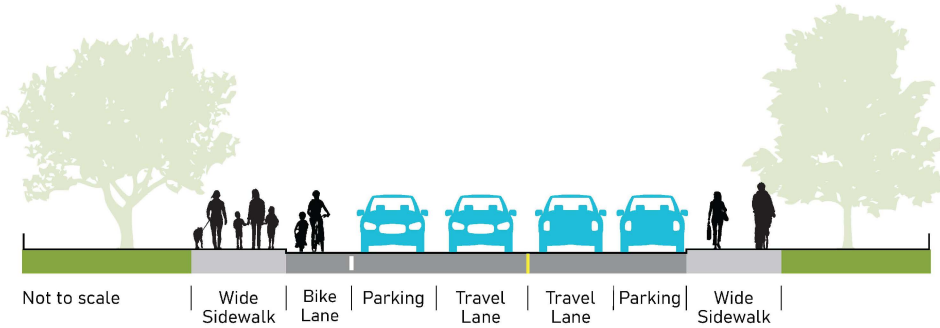
## SEPARATED BIKE FACILITY



Key Elements: Provides an exclusive bicycle facility that is physically separated from the roadway and distinct from the sidewalk. Separated bicycle facilities can be one-way or two-way, and may be at street level, at sidewalk level, or in between.

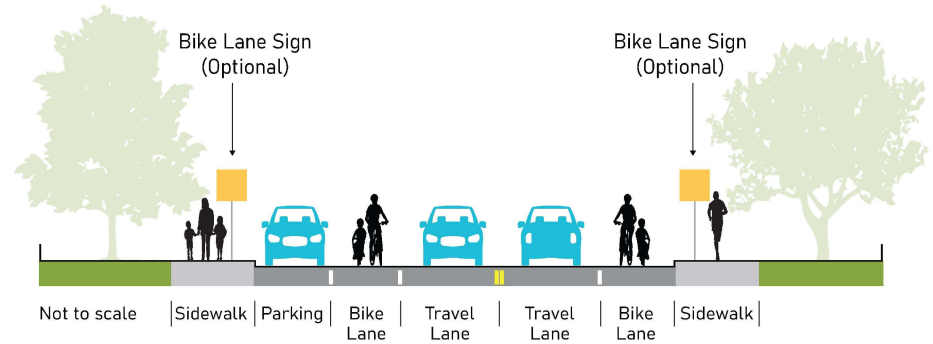
# FIGURE 7 Facility Types

## WIDE SIDEWALK



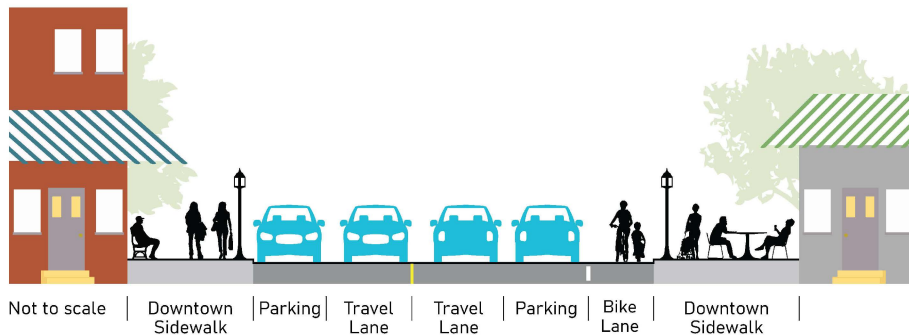
**Key Elements:** Provides a facility that is physically separated from the roadway. The sidewalk is 8-feet wide, which is wider than the standard 6-foot sidewalk but more narrow than a 10-foot shared use path. While it is primarily intended for pedestrian use, it can also be used by cyclists.

## BIKE LANE



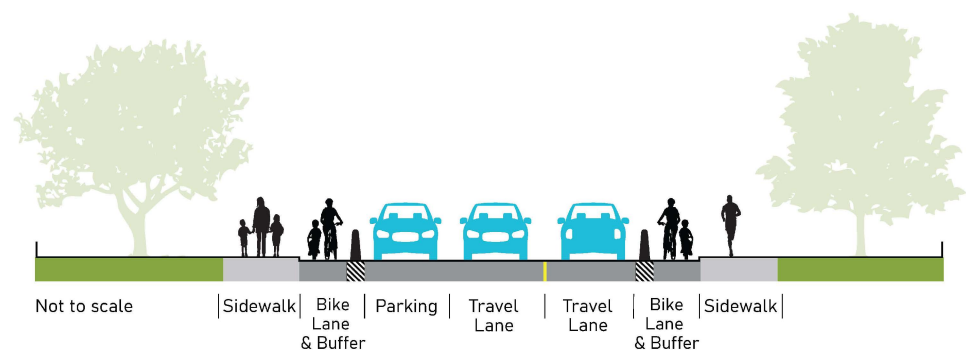
**Key Elements:** Provides an exclusive bicycle facility that is adjacent to a roadway and is distinct from the sidewalk.

## DOWNTOWN SIDEWALK



**Key Elements:** Downtown sidewalks are physically separated from the roadway. While they may be wider than a standard 6-foot sidewalk, they often have other elements including street furniture, landscaping, outdoor seating/retail use, etc. Downtown sidewalks should have a space at least 5-feet wide that is unobstructed, dedicated for walking space. While cyclists may use the sidewalk, it is primarily intended for pedestrian use.

## PROTECTED BIKE LANE

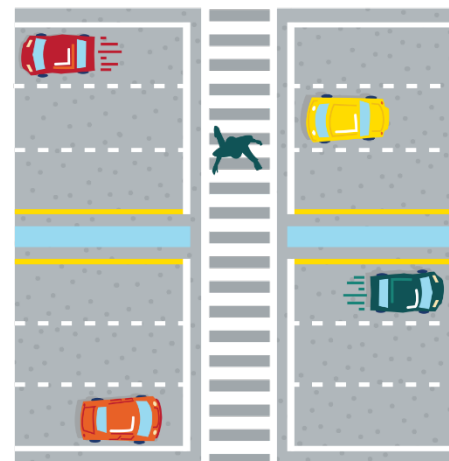


**Key Elements:** Provides an exclusive bicycle lane(s) that is physically separated from the roadway with a vertical barrier and is distinct from the sidewalk.

## Existing Network

Roadways and facilities that are eligible for federal funding (on designated collector roads, arterials, and state roads), also known as the federal-aid network, were evaluated as part of this ATP, as they serve as the major transportation network within the region.

As shown in **Table 1**, the federal aid-network is primarily made up of roadways with speed limits between 35 mph and 45 mph. Fewer than 20 percent of roadways in the region with a speed of 35 mph or higher have a dedicated bike facility, but about 73 percent of the roadway network has sidewalks on at least one side of the road. In addition to sidewalks and on-street bike lanes, there are also around 340 miles of side paths and 160 miles of shared used paths/trails within the region. The existing network of on-street bicycle facilities is shown in **Figure 8**, existing off-street bicycle facilities are shown in **Figure 9**, and existing pedestrian facilities are shown in **Figure 10**.



**Table 1: Miles of MPO Facilities by Posted Speed of Road**

	30 MPH or Less (% of MPO Network Centerline Miles)	35 to 45 MPH (% of MPO Network Centerline Miles)	50 MPH or More (% of MPO Network Centerline Miles)
ATP Roadway Network	391	1,191	389
Bike Lane (4 feet +)	37 (9%)	216 (18%)	92 (24%)
Sidewalk (One Side of the Road)	239 (61%)	765 (64%)	69 (18%)
Sidewalk (Both Sides)	108 (28%)	223 (19%)	38 (10%)

Source: xGeographic; Fehr & Peers, 2024





FIGURE 8

# Existing On-Street Bicycle Facilities

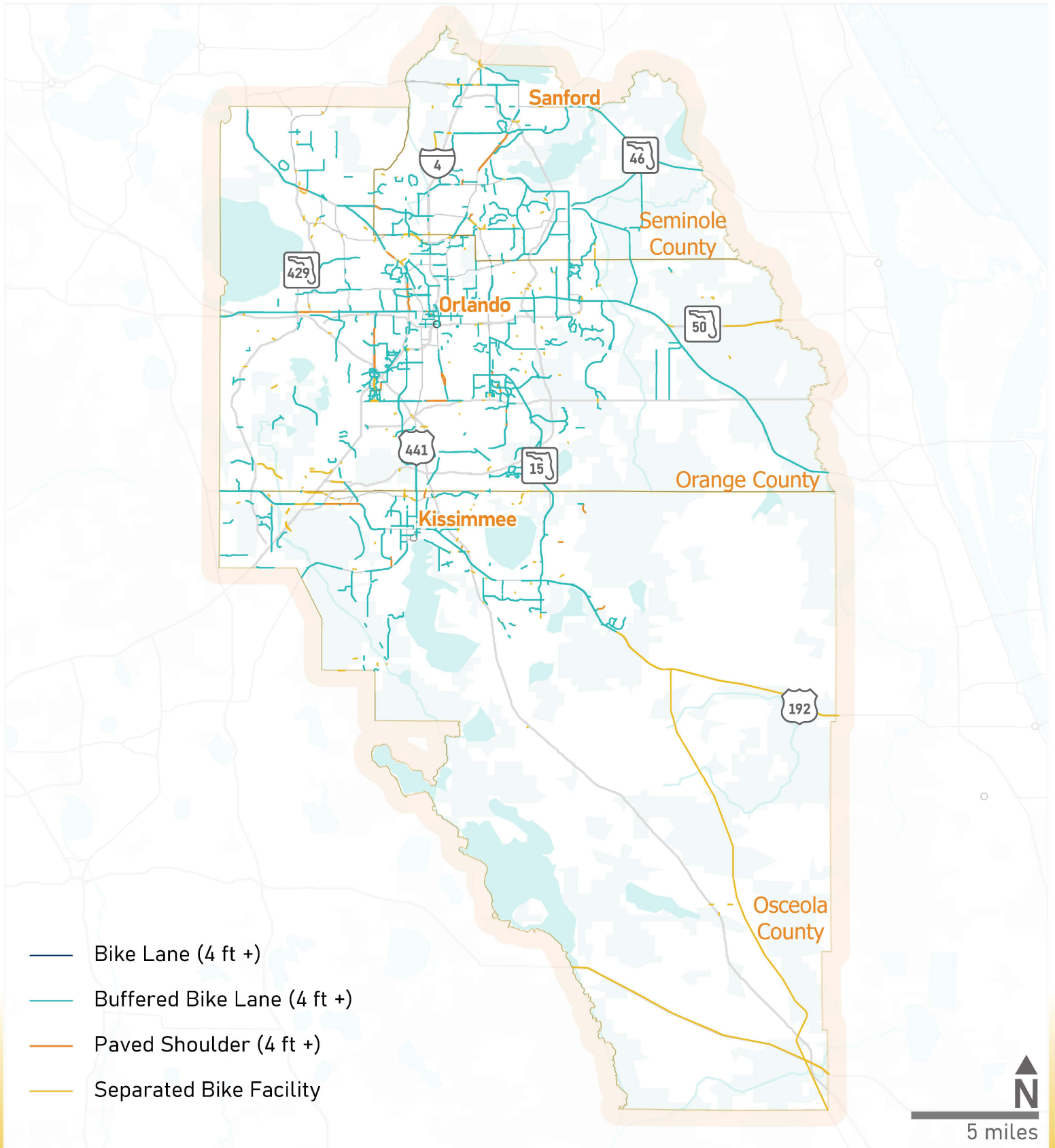




FIGURE 9

# Existing Off-Street Bicycle Facilities

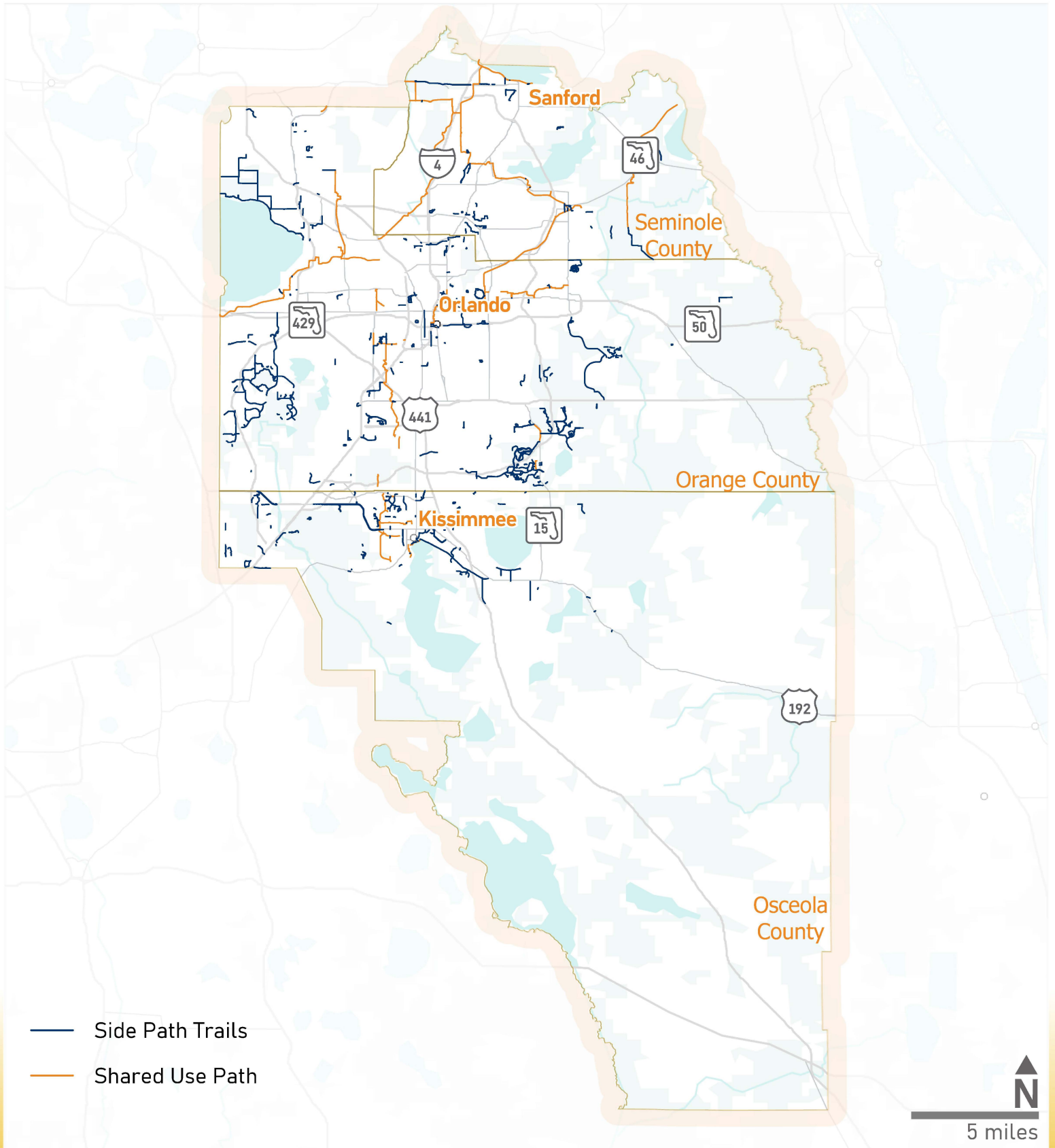
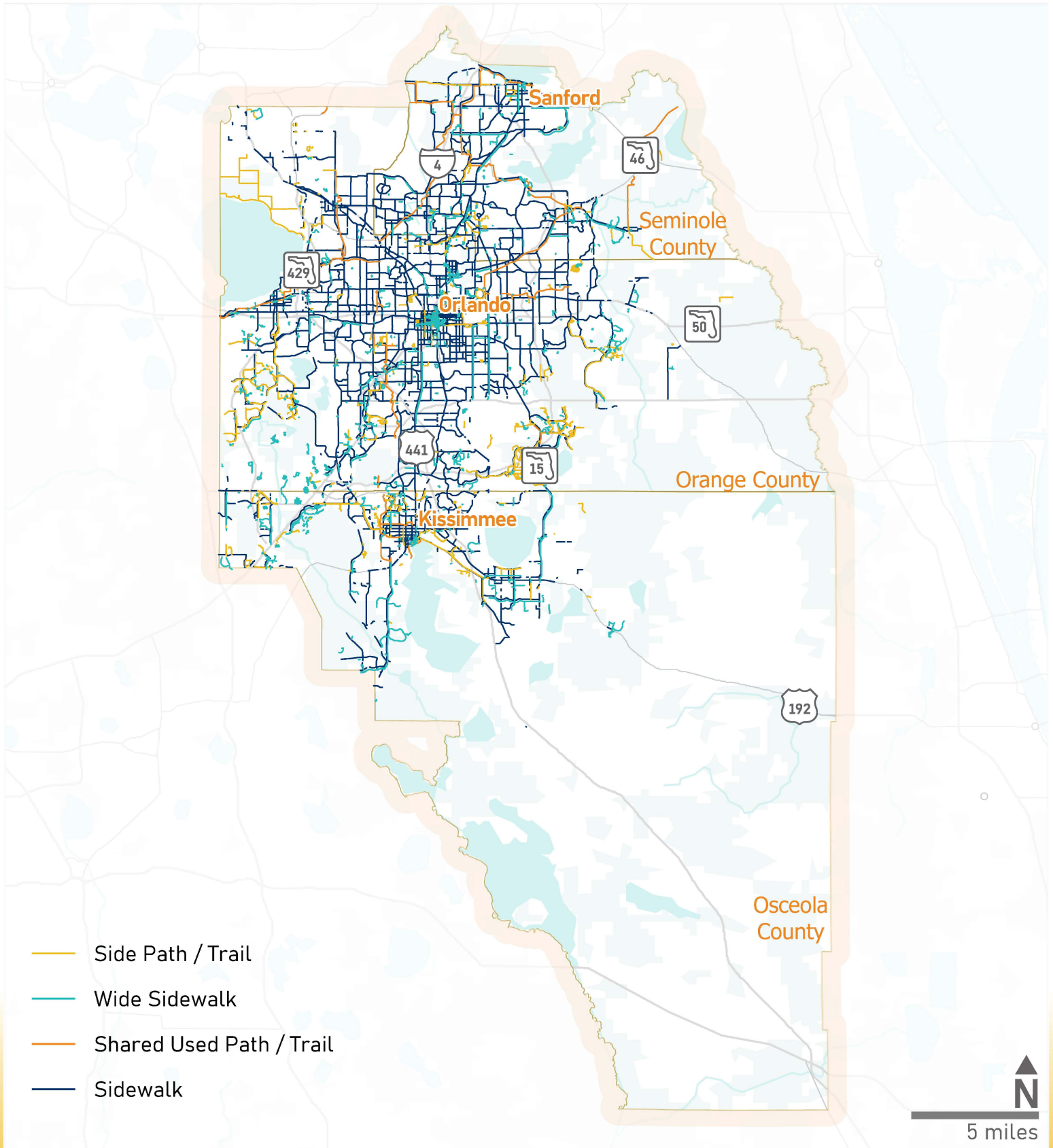




FIGURE 10

# Existing Pedestrian Facilities



## Level of Traffic Stress and Pedestrian Level of Comfort

To determine where new and enhanced walking and bicycling facilities could improve accessibility within the MetroPlan Orlando region, a Level of Traffic Stress (LTS) and a Pedestrian Level of Comfort (PLOC) analysis were conducted to assess the comfort of people bicycling and walking within the region. **Figure 11** and **Figure 12** provide visual depictions of the LTS/PLOC ratings.



### LTS 1

Most children can use this level confidently.



### LTS 2

This is the level that will be tolerated by most adults.



### LTS 3

This is the level that will be tolerated by trained and experienced cyclists who still prefer having their own dedicated space for riding.



### LTS 4

This is the level that will be tolerated only by those with limited route or mode choice or trained and experienced cyclists that choose to ride under stressful conditions.

*Figure 11: Visual Depiction of Level of Traffic Stress*



## PLOC 1

This level is suitable for all users, including older children traveling alone, the elderly, and people using a wheeled mobility device. People feel safe and comfortable on the pedestrian facility, and all users are willing to use the pedestrian facility.



## PLOC 2

At this level, all users are able to use the facility, and most users are willing to use the facility.



## PLOC 3

At this level, some users are willing to use this facility, but others may only use the facility when there are limited route and mode choices available.



## PLOC 4

The facility is difficult or impassible by a wheeled mobility device or users with other limitations in their movement. It is most likely used by people with limited route and mode choice.



## PLOC 5

No pedestrian facilities are provided.

*Figure 12: Visual Depiction of Pedestrian Level of Comfort*



Results of the existing conditions LTS are presented in [Table 2](#) and results of the existing conditions PLOC analysis are presented in [Table 3](#). Additional details are provided in the existing conditions report provided in [Appendix A: Existing Conditions](#).

Among the roadways where bike lanes or paved shoulders 4-feet wide or wider are provided, around 87 percent of the facilities are higher stress (LTS 3 or 4). As bikes are allowed to use the roadway even if a bike lane is not provided, an analysis was conducted on the roads without bike lanes as well; 84 percent of roads without bike lanes are considered stressful. About 55 percent of the existing pedestrian facilities are higher stress (PLOC 3 or 4). For bicycling and walking, lower stress facilities are typically separated from the vehicular travel way, such as side path or sidewalk with a landscaped buffer between the vehicular and bicyclist/pedestrian travel way. There are about 529 miles of roadway on the MPO network (excluding limited access facilities) where a sidewalk is not provided on either side of the street.

LTS and PLOC are useful indicators of whether a person will choose to walk or bike. However, there are areas where the only option for walking and biking trips is a high stress facility, and people must use it due to a lack of other choices. Filling gaps in the active transportation network, particularly on or near high stress facilities, could be a good opportunity to improve bicyclist and pedestrian comfort in the region, and provide improved travel choices.

**Table 2: Existing LTS Score for MPO Network by Bicycle Facility Type (in miles of facility)**

LTS Score	Shared Use Path/ Trail	Side Path*	Bicycle Lanes/Paved Shoulder	No Bicycle Facility
1	157 (100%)	145 (100%)	73 (10%)	123 (10%)
2	-	-	30 (4%)	74 (6%)
3	-	-	85 (12%)	249 (20%)
4	-	-	533 (74%)	802 (64%)

Note: \* There are an additional 191 miles of side paths in the region that are not on a Federal Aid Network roadway. Source: xGeographic; Fehr & Peers, 2024

**Table 3: Existing PLOC Score for MPO Network by Pedestrian Facility Type (in miles of facility)**

PLOC	Shared Use Path/ Trail	Side Path*	Sidewalks Both Side	Sidewalks One Side	No Sidewalks
1	157	145	166	-	-
2	-	-	396	88	-
3	-	-	250	195	-
4	-	-	260	85	-
5	-	-	-	-	529

Note: \* There are an additional 191 miles of side paths in the region that are not on a Federal Aid Network roadway. Source: xGeographic; Fehr & Peers, 2024

## Accessibility and Comfort Analysis

A travel access analysis was conducted to identify locations in the region that have a high level of access to a variety of destinations via low stress walking and bicycling facilities, and parts of the region that may have high levels of access, but only on high-stress facilities. This analysis is referred to as an accessibility analysis. While this analysis seeks to understand how accessible different destinations are, it does not measure Americans with Disability Act (ADA) accessibility.

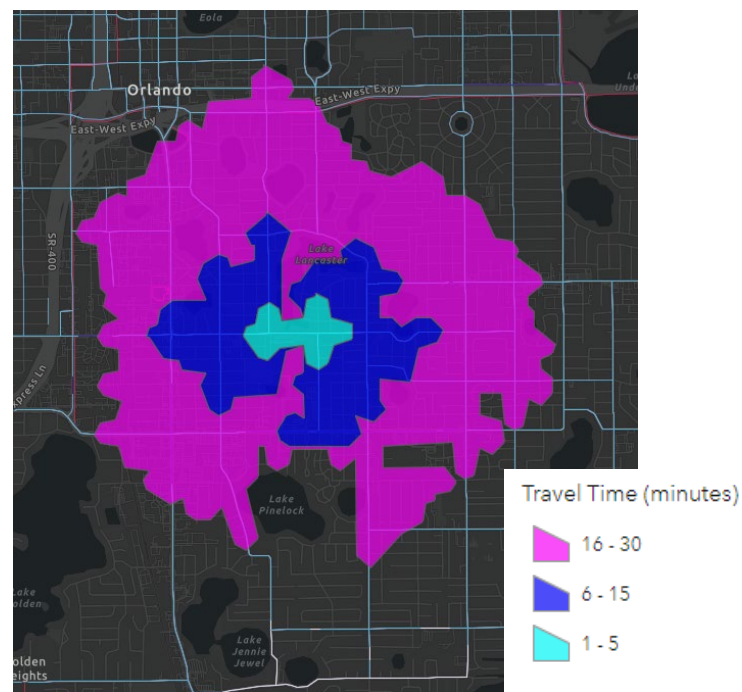
The following points of interest (POIs) were considered locations where travel access would be prioritized:

- Public schools
- Transit facilities, such as LYNX stops and SunRail stations
- Parks, including neighborhood parks and regional parks
- Jobs
- Shopping, including grocery stores

The accessibility analysis consists of three primary components.

- 1) travel access—the number of destinations a person can get to within a certain amount of time
- 2) mobility—how far a person can travel in a specific amount of time by each mode of travel
- 3) accessibility—a combination of access and mobility determining the number and type of destinations available by time and mode of travel

For each destination type, the travel shed, or the areas that could be reached within 1-5 minutes, 6-15 minutes, and 16-30 minutes, based on a walking speed of 3 mph and a biking speed of 10 mph, were assessed. It was assumed that no walking trips were able to pass without a sidewalk. An example walk shed is shown below.



**Example of a 5, 10 and 15 Minute Walk Shed around Boone High School**

The results were then summed across all key destinations within that travel shed. The accessibility rating is then a combination of access and mobility – typically, people have much greater access to destinations in vehicles than walking. The higher the total accessibility score, the higher the level of access via bicycling and walking. Detailed results are provided in [Appendix A: Existing Conditions](#) and [Appendix B: 2050 ATP Accessibility Analysis](#).

These results were then combined with the level of traffic stress and pedestrian level of comfort analysis. Roadways were rated with one of four scores:

- **High Access and Low LTS/PLOC** – these are roadways where there are many destinations within the travel buffers (above average access score), and the route is comfortable (average LTS/PLOC score of 2 or better)
- **Low Access and Low LTS/PLOC** – these are roadways where there are not many destinations within the travel buffers (lower than average access score), but the route is comfortable (average LTS/PLOC score of 2 or better)
- **High Access and High LTS/PLOC** – these are roadways where there are many destinations within the travel buffers (above average access score), but the route is uncomfortable (average LTS/PLOC score greater than 2)
- **Low Access and High LTS/PLOC** – these are roadways where there are not many destinations within the travel buffers (lower than average access score), and the route is uncomfortable (average LTS/PLOC score greater than 2)

The analysis results are shown on [Figure 13](#) for bicyclist access and comfort and [Figure 14](#) for pedestrian access and comfort in the existing condition. This analysis was replicated for the proposed network and 2050 ATP network, as described in the next sections.







FIGURE 13

# Existing Network Bike Access & Comfort Summary

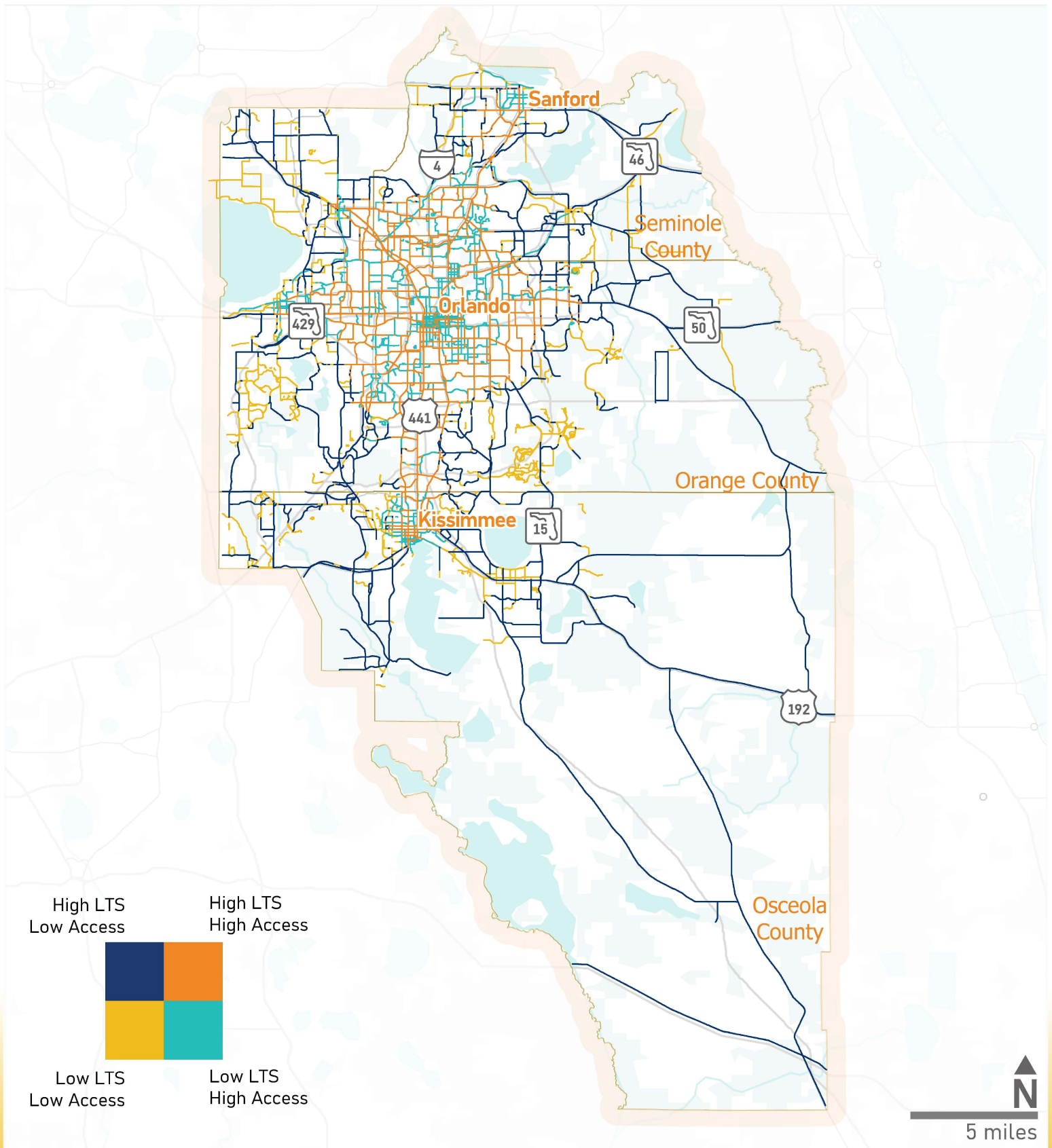
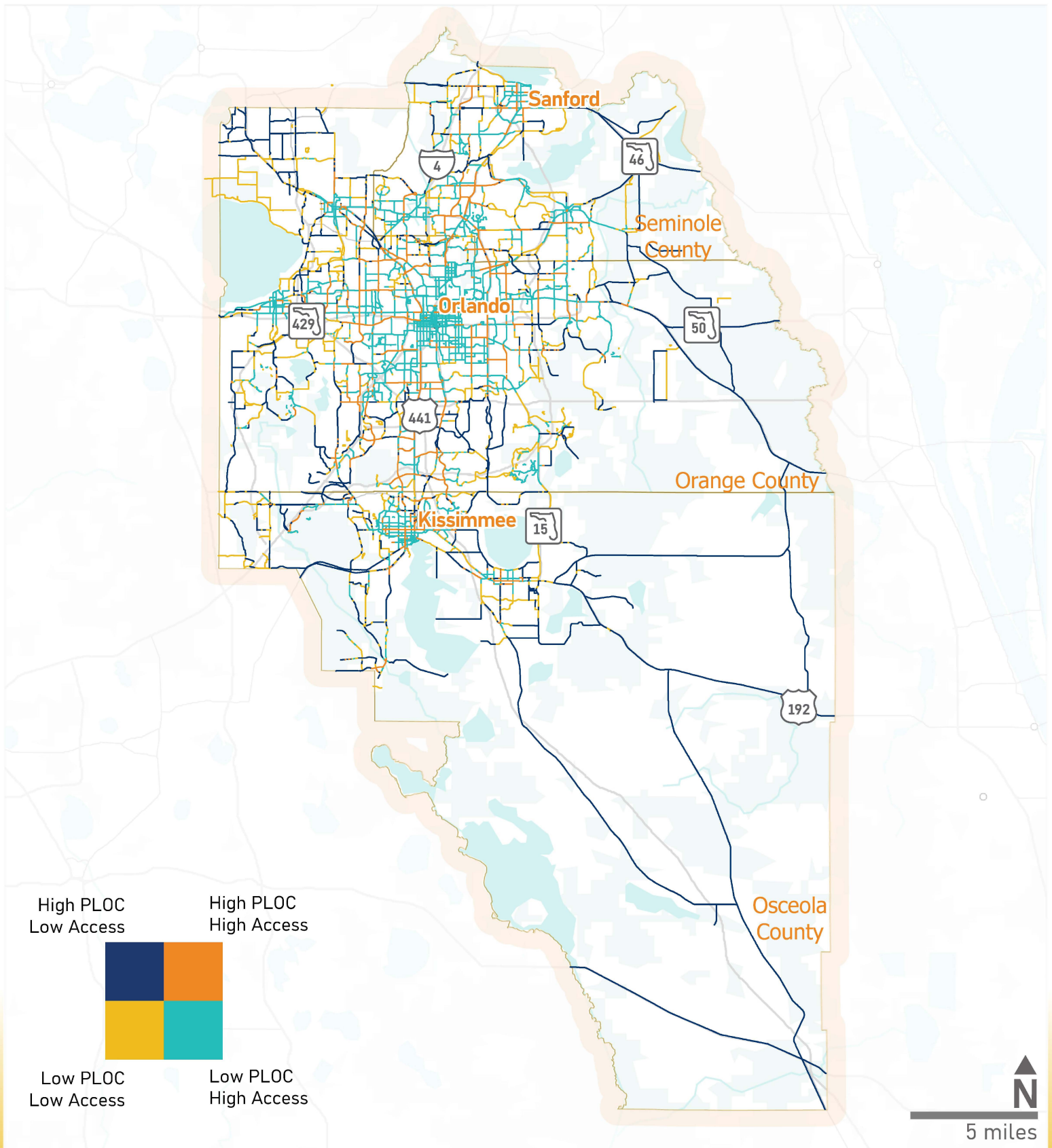




FIGURE 14

# Existing Network Pedestrian Access & Comfort Summary



# Network Development

## Planned Project Network

The network development began with a review of the previously planned active transportation projects and confirmation with local agency partners that these projects were still needed by the community and are still being planned for implementation. The miles of planned shared use paths/trails, side paths, and on-street bicycle facilities on or adjacent to the federal-aid network, as described previously in the Existing Conditions chapter, are shown on [Table 4](#). Projects to fill sidewalk gaps were developed as part of a separate Regional Critical Sidewalk Gap project and can be viewed in the MetroPlan Orlando Prioritized Project List. Planned on-street bicycle facilities are shown on [Figure 15](#) and off-street facilities are displayed on [Figure 16](#) (at the end of this chapter), which also include projects not on the MPO Network.

**Table 4: Miles of Planned Facility Types on MPO Network**

Facility Type	Total
Shared Use Path/Trail	41
Side Path	613
Separated Bike Facilities	6
Bike Lane (4 feet +)	109

Source: xGeographic; Fehr & Peers, 2024

## New and Enhanced Project Networks

Once the existing and planned active transportation networks were documented, a needs assessment was performed to identify gaps. Opportunities for new projects were identified, and planned project descriptions were reviewed with potential enhancements suggested where appropriate. New projects and enhancements were informed by the Active Transportation Plan Toolbox of Strategies (See discussion starting on Page 26 of this document related to the ATP Toolbox). Additional details on the method to create the project lists are included in [Appendix C: Project Development Process](#). The following criteria were used to help identify new projects and project enhancements:

- Roads with higher motor vehicle speeds where bicycles and pedestrians could benefit from separated or dedicated facilities
- Roads where there have been five or more bicyclist or pedestrian crashes per mile, or there was one or more pedestrian or bicyclist that was killed or severely injured in the past five years
- Intersections where trails cross six-lane roadways and intersections where there have been three or more bicyclist or pedestrian crashes, or there was one or more pedestrian or bicyclist that was killed or severely injured in the past five years
- Utility rights-of-way, keeping in mind feasibility, including factors such as ownership and proximity to sensitive land uses
- Identified gaps in the bicycling and walking networks
- Facility comfort and access (analysis approach described starting on Page 19)

The initial project list was compared to the previously proposed projects from the Transportation Improvement Program (TIP) and the Prioritized Project List (PPL). Where a 2050 ATP proposed project overlapped with a previously identified TIP or PPL project, the proposed project was reviewed to determine if it was sufficient to meet the 2050 ATP goals, if it should be enhanced to meet the 2050 ATP goals, or if the project limits should be extended. Modified projects were added to the 2050 ATP Enhancements Project List. Projects that did not overlap with previously identified needs were identified as new projects ATP Project List in [Appendix D: ATP Project List](#).

## Refinement of ATP Project Networks

Based on the initial project list developed using the described process, detailed in [Appendix C: Project Development Process](#), initial public outreach was conducted to obtain feedback from the following groups:

**Partner Agencies** – MetroPlan Orlando is made up of 25 partner agencies including municipalities and counties.

**Steering Committee** – This is a diverse committee that includes representatives from FDOT, a bicycle and pedestrian advocacy group, an advocacy group for individuals with visual impairments, FDOT, county staff, local business groups, neighborhood groups, and law enforcement, among others.

**Technical Advisory Committee** – The Technical Advisory Committee is composed of transportation planners and engineers appointed by local governments and the region’s transportation operating agencies.

**Community Advisory Committee** – The Community Advisory Committee membership includes members of the public who represent multimodal transportation advocates, underserved communities, and business interests.

**General Public** – Feedback was sought from those already using active transportation facilities, as well as those who might be interested in using facilities if they connected to places they wanted to go and felt safer.

The collective feedback was used to develop a finalized list of projects, with a summary of the final engagement process provided in [Appendix E: Public Engagement Summary](#).





## Project Recommendations

Based on the technical analysis and the feedback from partner agencies and the public, a final list of 2050 ATP Projects was developed, which includes 253 projects in the following general categories:

- 3 existing bicycle lane modifications
- 47 bicycle lane enhancements to already planned projects
- 4 bicycle bridges/tunnels
- 65 new corridor projects, which include adding or widening bike lanes, adding side paths, speed management, and/or a safety focus
- 20 enhancements to already planned corridor projects.
- 7 new trail segments
- 5 trail gap closures
- 25 enhancements to already planned trail crossing projects
- 7 new trail crossing improvements
- 57 new intersection improvements, some with a signing, striping & signal timing focus, and others with reconfiguration elements, such as reducing curb radii, adding pedestrian refuge islands, and providing directional curb ramps
- 10 enhancements to already planned intersection improvements
- 3 enhancements to already planned trail crossing improvements

Of the 253 projects, 105 are enhancements to already planned projects, and 148 are new projects. The new project locations are displayed on [Figure 17](#) for all of Orange County, [Figure 18](#) for a closer view of select Orange County communities, [Figure 19](#) for Osceola County and [Figure 20](#) for Seminole County. A list is provided in [Appendix D: ATP Projects and Existing Planned Project Enhancements](#), which includes the following information:

- Unique project identifier
- Existing project identifier, if applicable
- Needs type
- Road name
- Project start/end
- Project length
- Description
- Jurisdiction
- Preliminary prioritization score

The resulting overall Active Transportation Networks, considering planned and 2050 ATP projects, were shown previously on [Figure 1](#) for the region, [Figure 2](#) for Orange County, [Figure 3](#) for an inset of Orange County, [Figure 4](#) for Osceola County and [Figure 5](#) for Seminole County.


## ATP Toolbox

To support the implementation of projects identified in the 2050 ATP, a toolbox of strategies was developed with additional information on the following categories:

- Bicycle Infrastructure
- Pedestrian Infrastructure
- Transit Access
- Safety and Comfort

The full toolbox is included as **Appendix F: Active Transportation Plan Toolbox of Strategies**.

### Wayfinding



Wayfinding systems use signs and markings to tell bicyclists and pedestrians that they are on a designated route and help guide them to their destination. Wayfinding also alerts drivers of the route. Signs can be placed at decision points along the route. Signs that indicate distances or time to destination can also help overcome public perception that destinations are too far to reach.



FIGURE 15

# Planned On-Street Bicycle Facilities

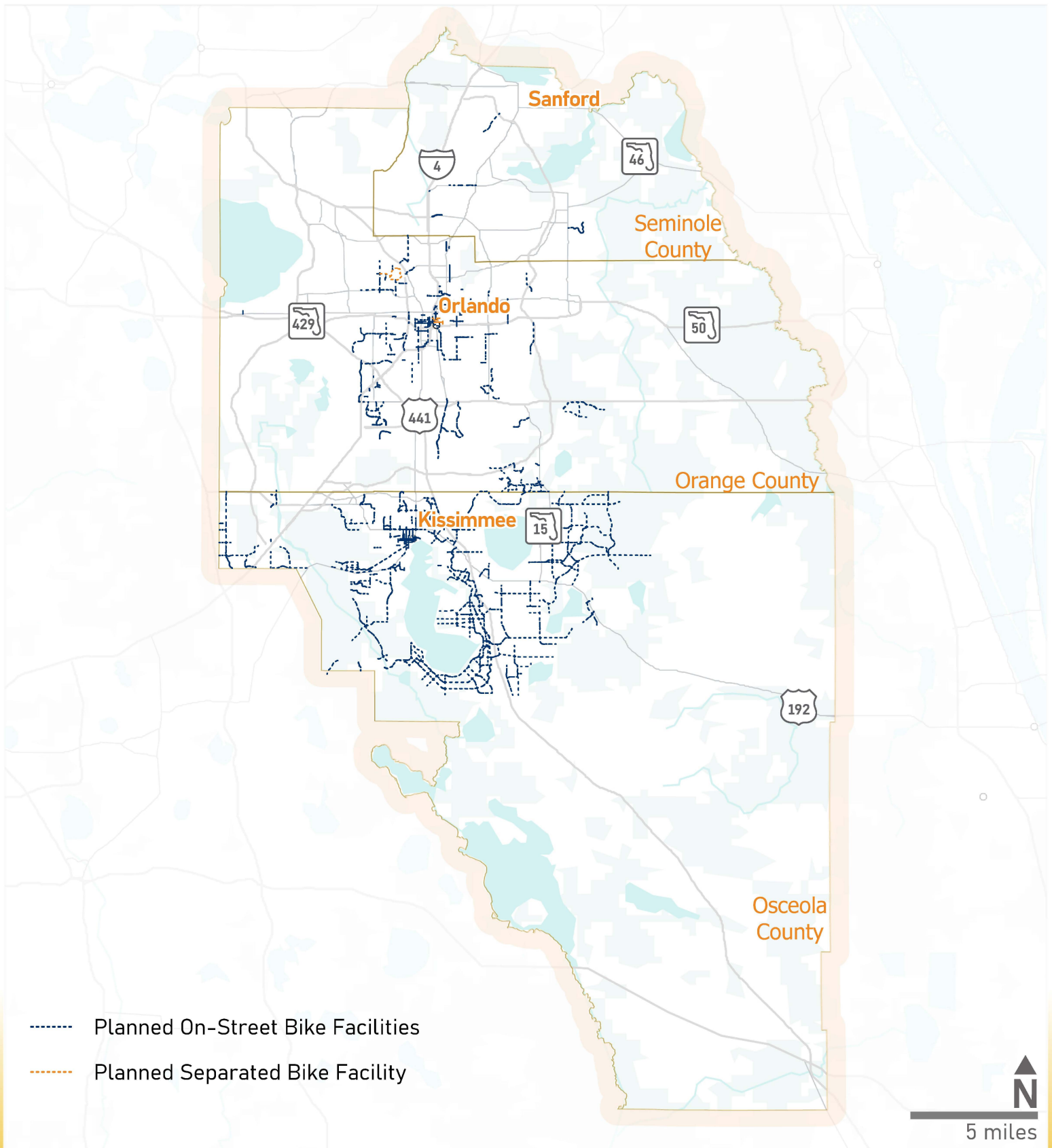




FIGURE 16

# Planned Off-Street Bicycle Facilities

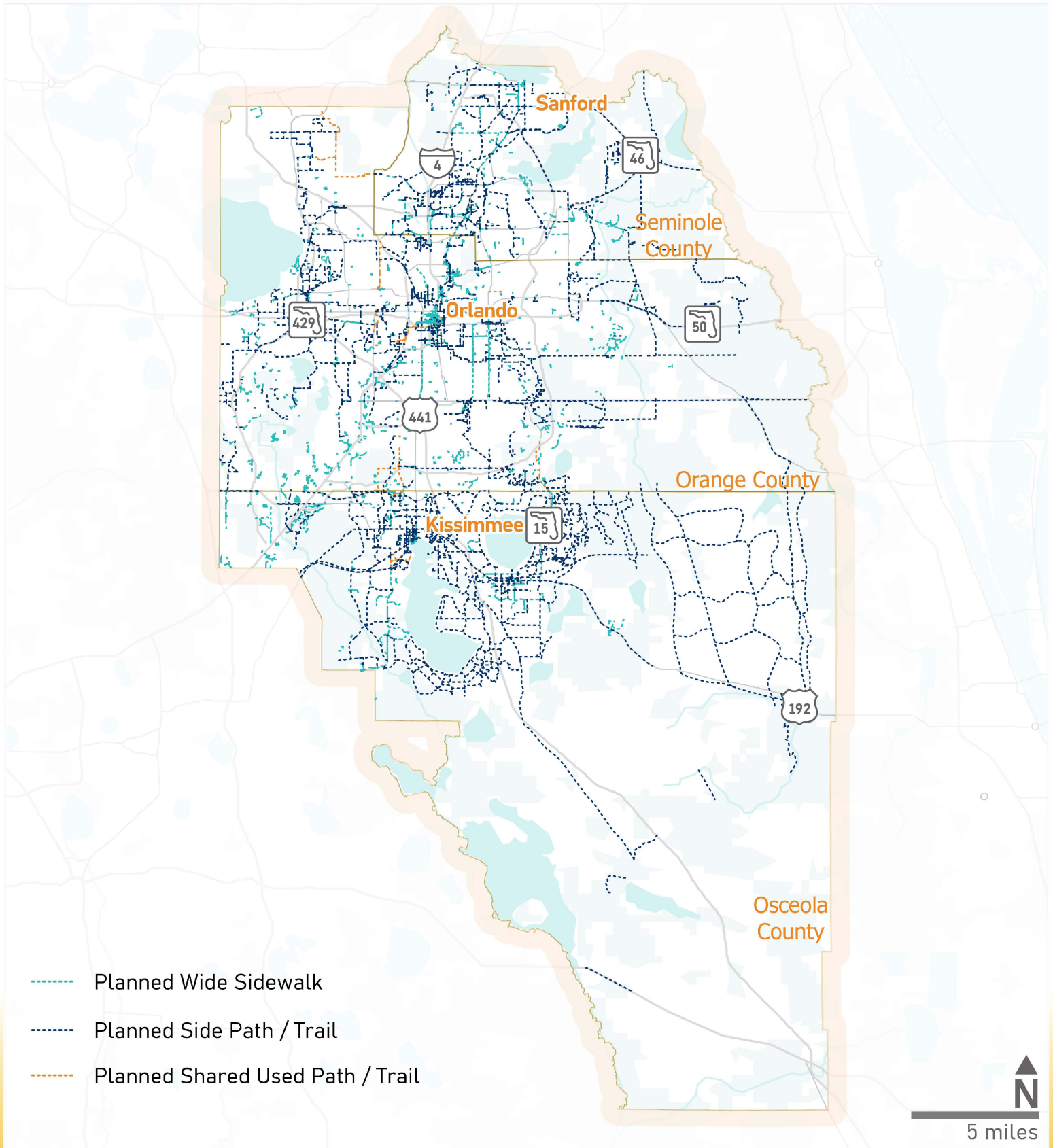






FIGURE 17

# Existing Network Bike Access & Comfort Summary

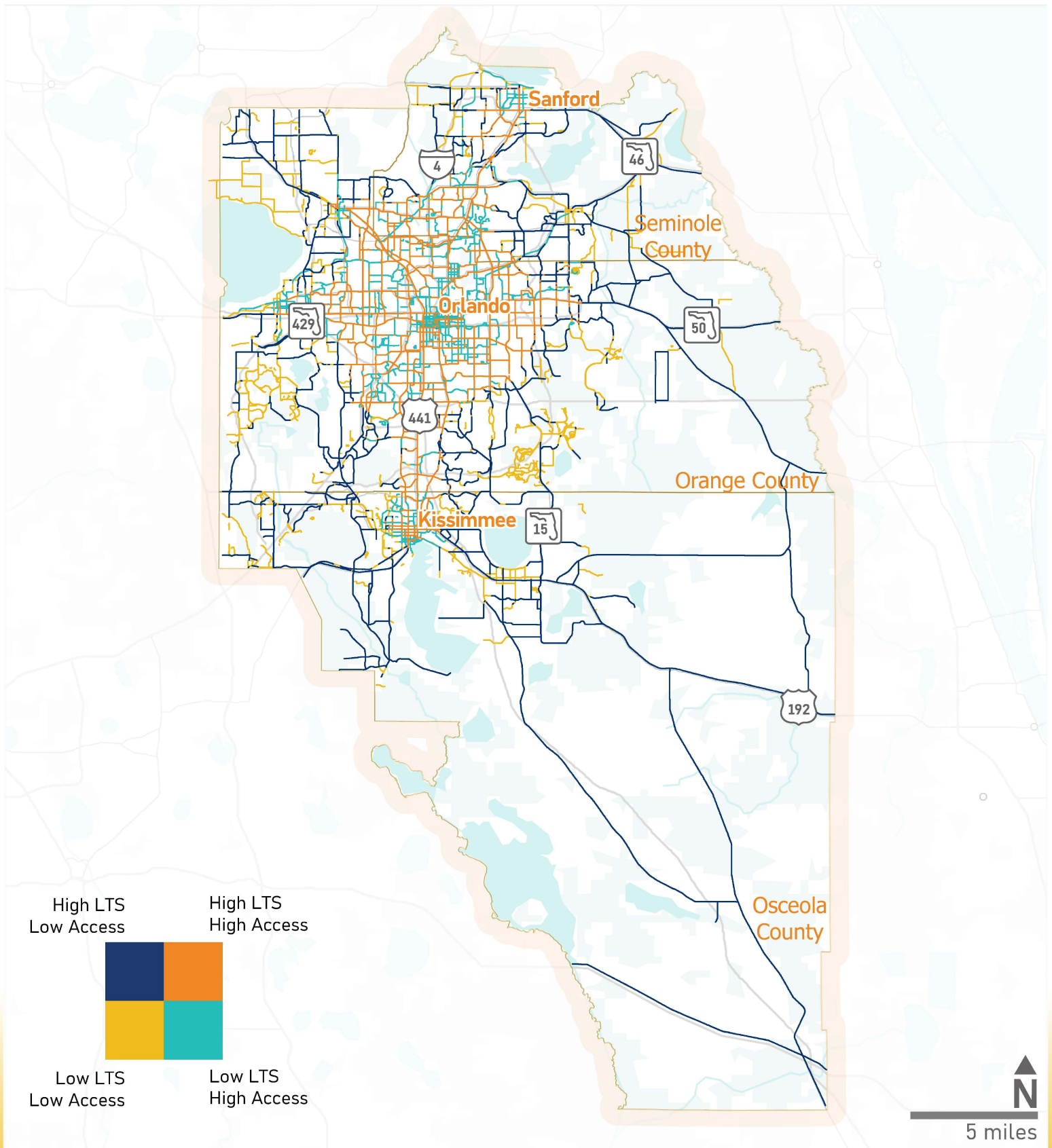




FIGURE 18

# Existing Network Pedestrian Access & Comfort Summary

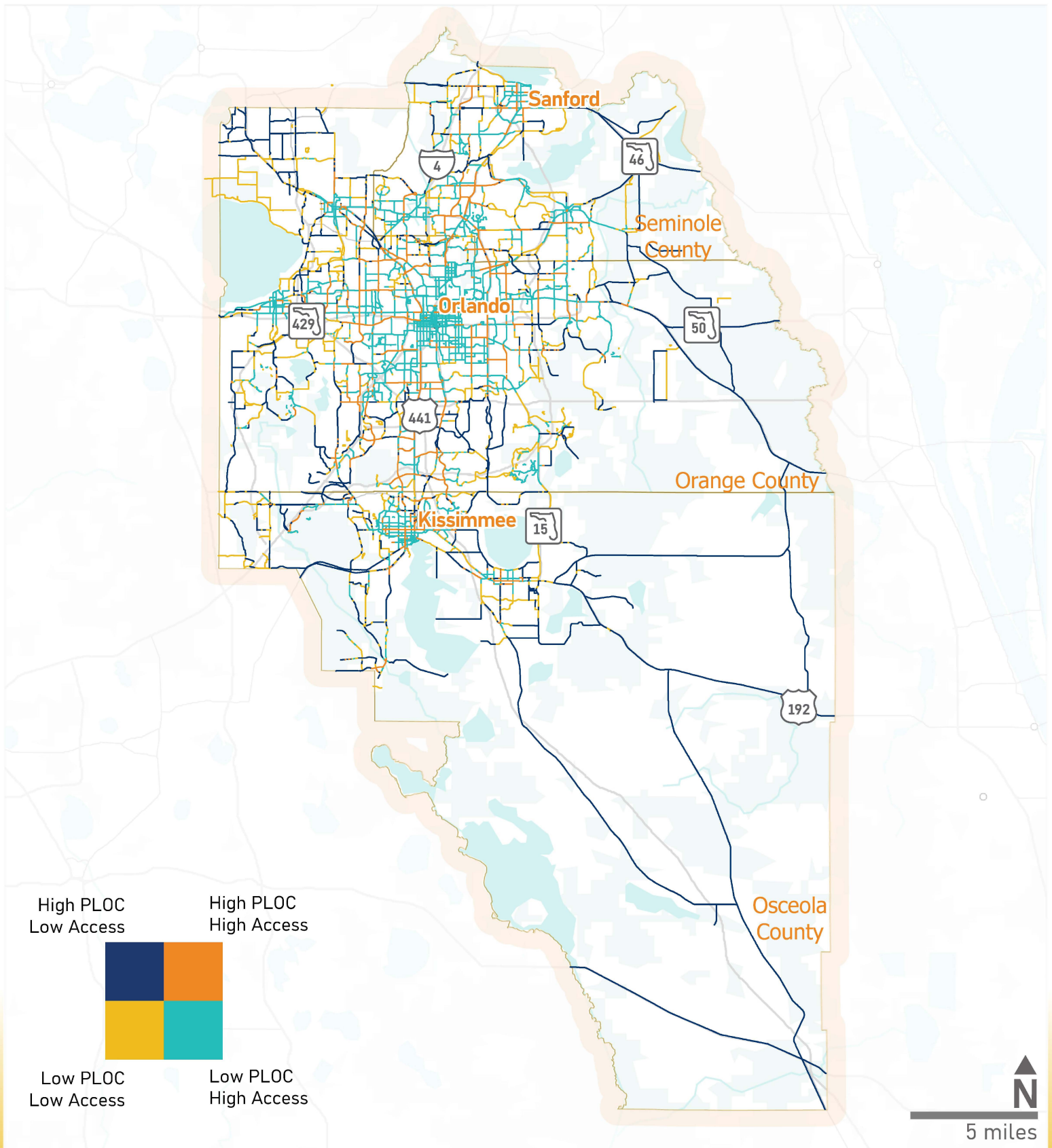




FIGURE 19

# Planned On-Street Bicycle Facilities

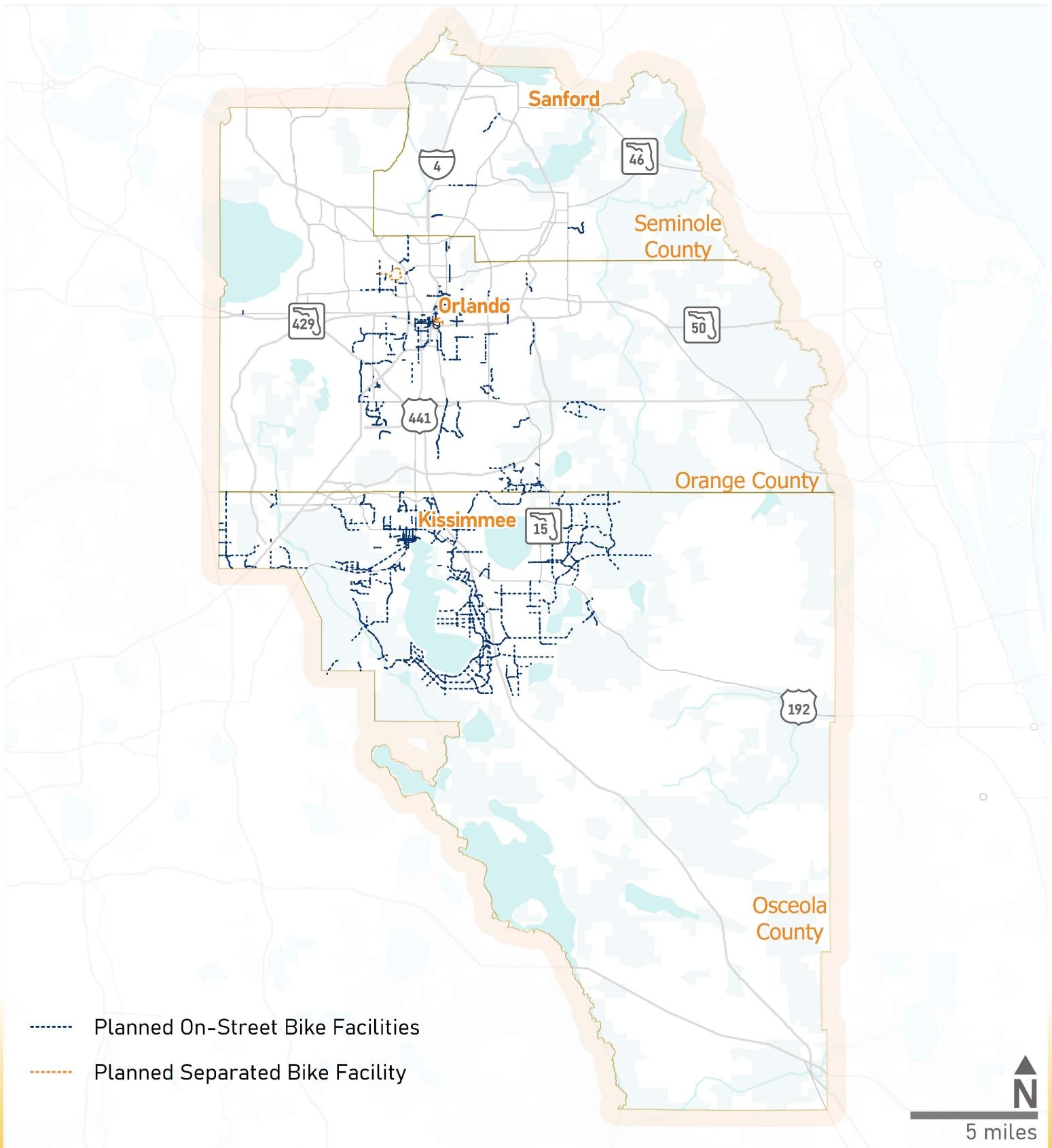
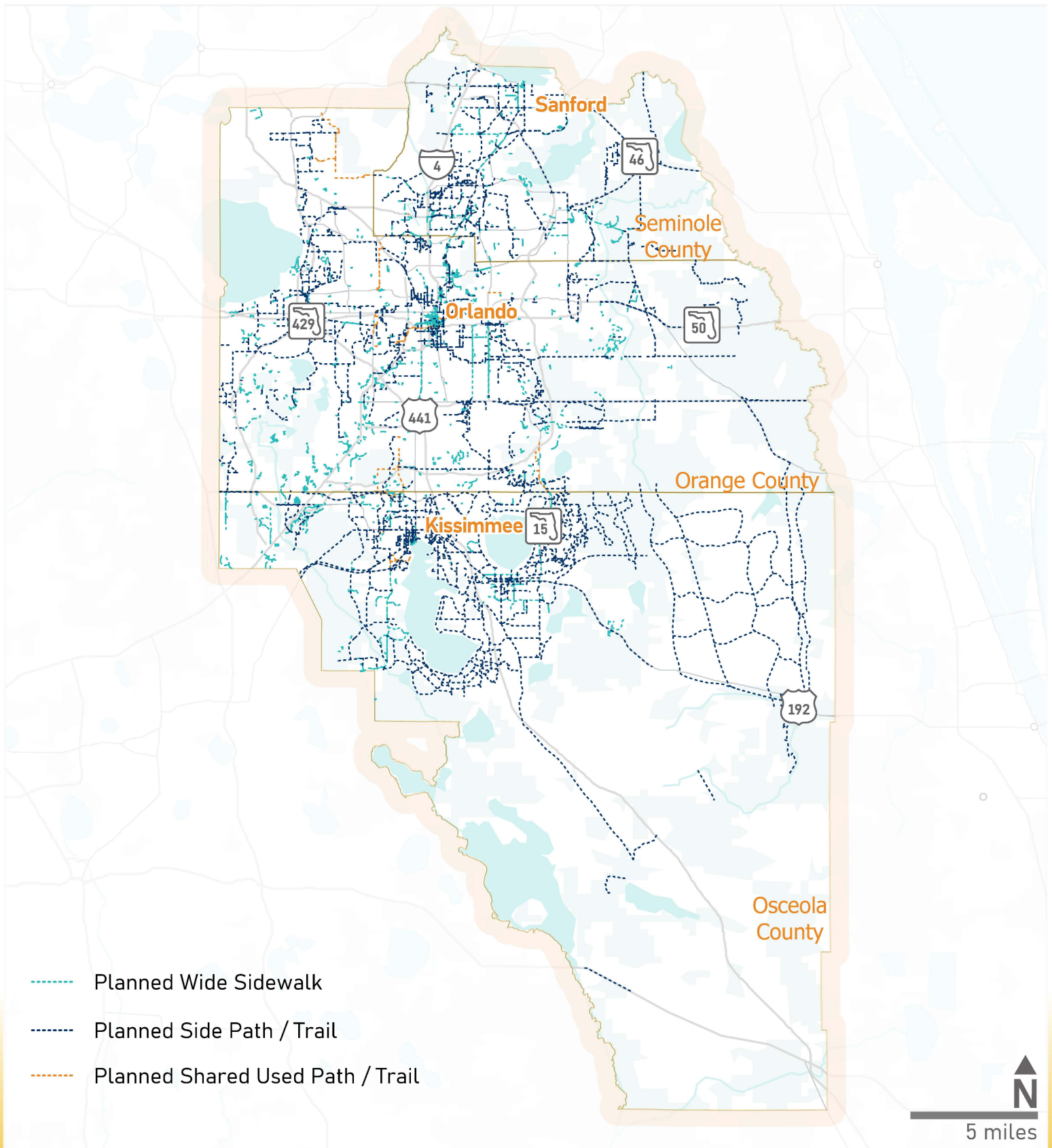




FIGURE 20

# Planned Off-Street Bicycle Facilities



## Future Accessibility and Comfort

An analysis of comfort and accessibility was conducted for the 2050 ATP network, with the details provided in **Appendix E: 2050 ATP Accessibility Analysis**. With development of the 2050 ATP network, the level of traffic stress (**Table 5**) and the pedestrian level of comfort (**Table 6**) would improve. The number of destinations accessible by a comfortable walk or bike ride would also increase, as summarized in **Table 7** and **Table 8** for 15- and 30-minute travel shed, representing the overall percent of increased accessibility to different destinations in the region.

Shopping destinations see the largest increase in accessibility for walking, followed closely by transit facilities. Transit facilities see the largest increase in bicycling accessibility within a 15-minute bike ride. For longer trips, shopping and jobs see the largest increases for walking and bicycling trips, respectively. **Table 9** and **Table 10** show the absolute increase in destinations that are accessible throughout the region. The results of this analysis were used as key inputs to the prioritization process.

Results of the accessibility analysis are shown on **Figure 21** for future bicyclist accessibility and comfort with implementation of planned projects, **Figure 22** for pedestrian accessibility and comfort with implementation of planned projects, **Figure 23** for bicyclist accessibility and comfort with implementation of planned and 2050 ATP projects, and **Figure 24** for pedestrian accessibility and comfort with implementation of planned and 2050 ATP projects.

**Table 5: 2050 ATP LTS Score for MPO Network by Bicycle Facility Type (in miles of facility)**

LTS Score	Shared Use Path/ Trail	Side Path*	Bicycle Lanes/Paved Shoulder	No Bicycle Facility
1	215 (100%)	808 (100%)	140 (17%)	144 (13%)
2	-	-	60 (7%)	69 (6%)
3	-	-	103 (12%)	223 (20%)
4	-	-	532 (64%)	691 (61%)

Source: xGeographic; Fehr & Peers, 2024

**Table 6: 2050 ATP PLOC Score for MPO Network by Pedestrian Facility Type (in miles of facility)**

PLOC	Shared Use Path/ Trail	Side Path*	Sidewalks Both Side	Sidewalks One Side	No Sidewalks
1	215	808	230	67	-
2	-	-	371	120	-
3	-	-	235	124	-
4	-	-	238	59	-
5	-	-	-	-	523

Source: xGeographic; Fehr & Peers, 2024



**Table 7: With 2050 ATP Summary of Percent Change in Travel Access Via Predominately Low-Stress Networks\* – 15 Minute Travel Time**

Land Use Type	Percent Change in Walking Accessibility (15-minute low stress walk)	Percent Change in Biking Accessibility (15-minute low stress bike ride)
Schools	114%	213%
Transit acilities	171%	1800%
Parks	57%	190%
Jobs	108%	733%
Shopping	264%	950%

\* Predominantly low-stress network work definition: Average PLOC or LS on all roads within shed is less than or equal to 2.  
Source: xGeographic; Fehr & Peers, 2024

**Table 8: With 2050 ATP Summary of Percent Change in Travel Access Via Predominately Low-Stress Networks\* – 30 Minute Travel Time**

Land Use Type	Percent Change in Walking Accessibility (30-minute low stress walk)	Percent Change in Biking Accessibility (30-minute low stress bike ride)
Schools	173%	157%
Transit Facilities	226%	800%
Parks	161%	90%
Jobs	141%	900%
Shopping	323%	600%

\* Predominantly low-stress network work definition: Average PLOC or LS on all roads within shed is less than or equal to 2.  
Source: xGeographic; Fehr & Peers, 2024

**Table 9: With 2050 ATP Travel Access Summary Via Predominately Low-Stress Network\* – 15 Minute Travel Time**

Land Use Type	Total within Region	Total Accessible on Walking Network	Percent Accessible on Walking Network	Total Accessible on Biking Network	Percent Accessible on Biking Network
Schools	317	191	60%	78	25%
Transit Facilities	4,280	2,457	57%	827	19%
Parks	817	567	69%	240	29%
Jobs	2,010,435	1,000,617	50%	496,399	25%
Shopping	1776	900	51%	378	21%

\* Predominantly low-stress network work definition: Average PLOC or LTS on all roads within shed is less than or equal to 2.  
Source: xGeographic; Fehr & Peers, 2024

**Table 10: With 2050 ATP Future Travel Access Summary Via Predominately Low-Stress Network\* – 30 Minute Travel Time**

Land Use Type	Total within Region	Total Accessible on Walking Network	Percent Accessible on Walking Network	Total Accessible on Biking Network	Percent Accessible on Biking Network
Schools	317	191	60%	56	18%
Transit Facilities	4,280	2,649	62%	386	9%
Parks	817	767	94%	158	19%
Jobs	2,010,435	1,060,923	53%	407,053	20%
Shopping	1776	982	55%	250	14%

\* Predominantly low-stress network work definition: Average PLOC or LTS on all roads within shed is less than or equal to 2.  
 Source: xGeographic; Fehr & Peers, 2024





FIGURE 21

# Planned Network Bike Access & Comfort Summary

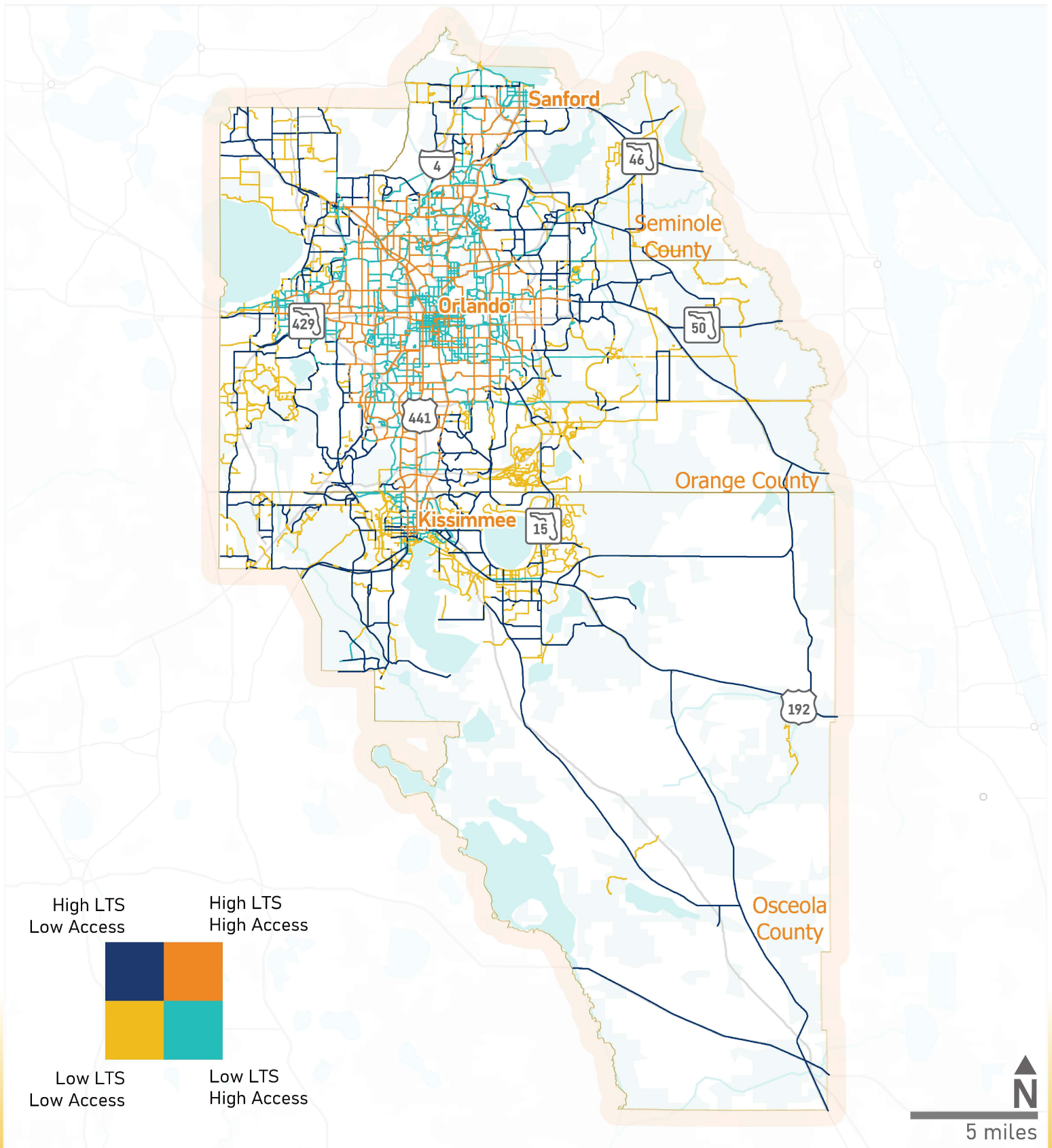






FIGURE 22

# Planned Network Pedestrian Access & Comfort Summary

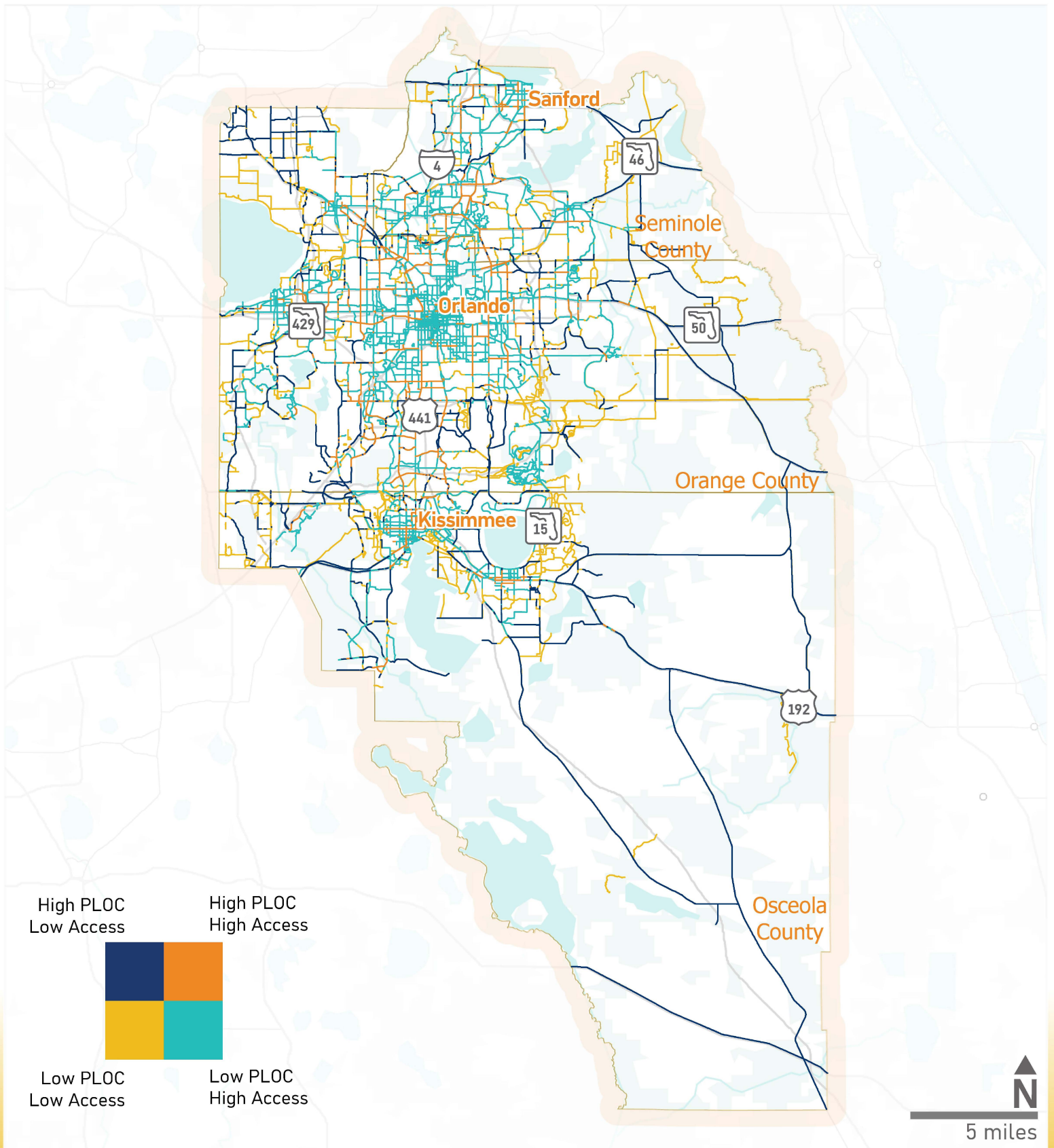




FIGURE 23

# 2050 ATP Network Bike Access & Comfort Summary

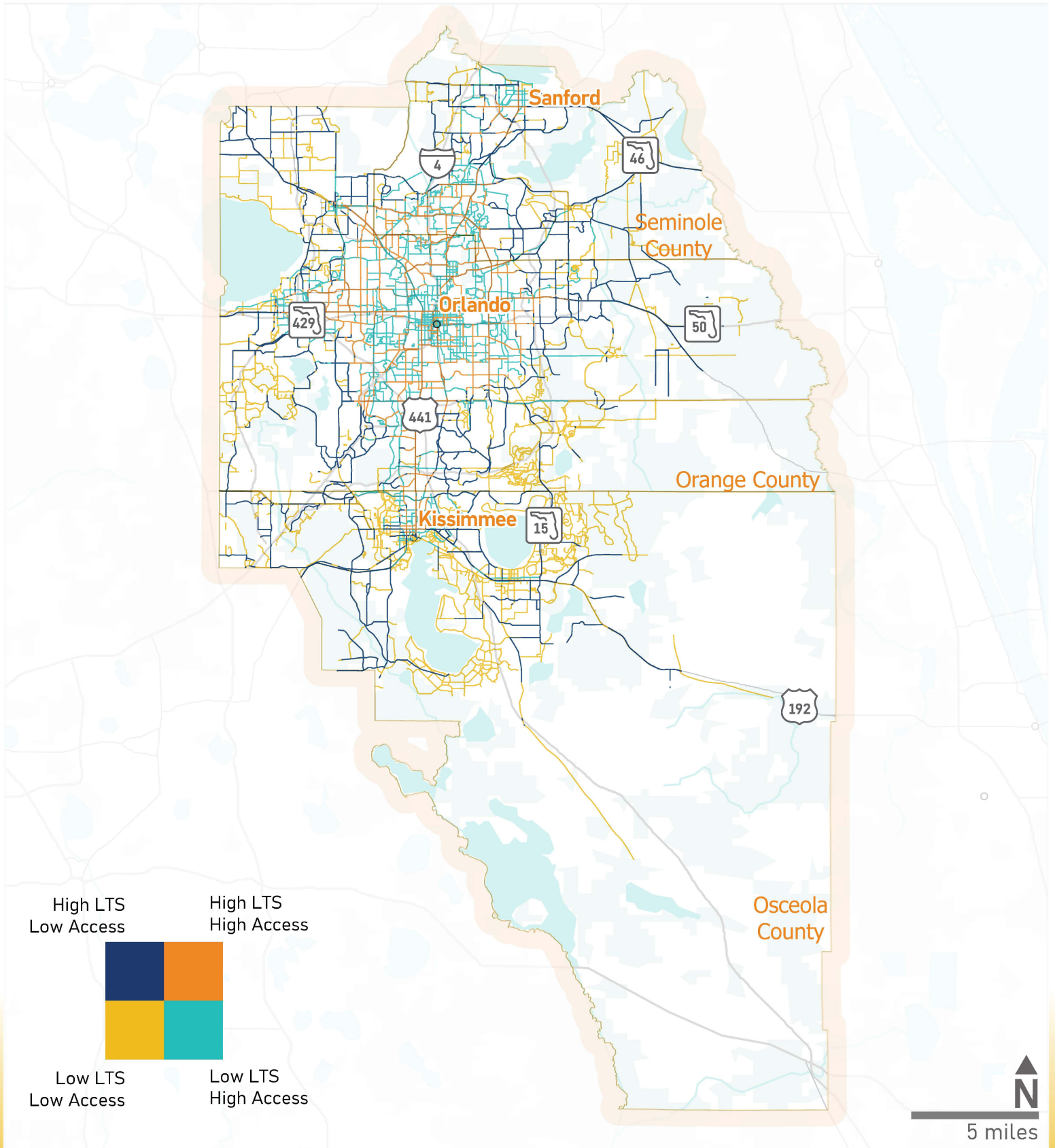
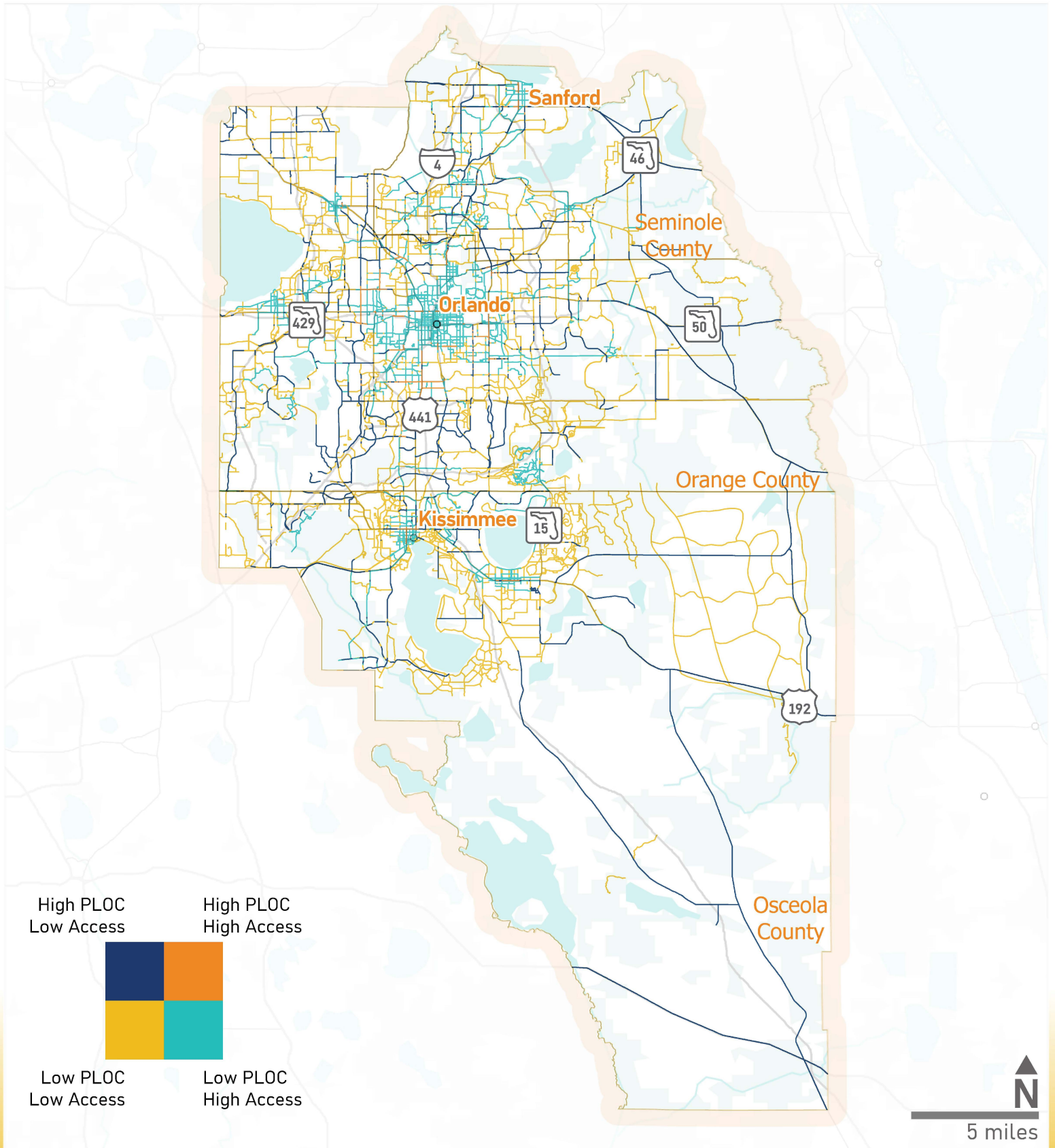




FIGURE 24

# 2050 ATP Network Pedestrian Access & Comfort Summary



# Prioritization

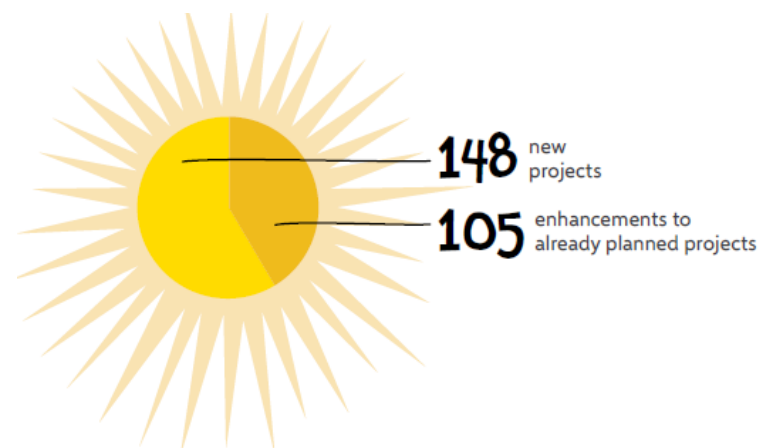
In collaboration with the Steering Committee, a set of criteria were selected to determine which project needs should be prioritized for construction as funding and other resources become available. This section describes the prioritization criteria and provides the prioritized needs list.

## Description of Prioritization Criteria and Process

The project prioritization process considers the following elements, with a detailed description of the process used to develop the criteria provided in [Appendix G: Prioritization Criteria Approach](#).

- Transportation Disadvantaged Areas based on data within the US DOT Equitable Transportation Community (ETC) Explorer web application
- Bicyclist and Pedestrian Safety
- Accessibility and Connectivity
- Comfort
- Jurisdictional Significance
- Regional Significance

The Steering Committee provided feedback on the criteria and helped develop the weighting of each category; the criteria are provided in [Table 11](#).



**What gets built first?**



**Table 11: ATP Evaluation Criteria**

Goal Area	Potential Evaluation Criteria	Criteria Scoring	Criteria Weighting	Notes / Data Source
Transportation Disadvantaged / Historically Underserved Areas <sup>1</sup>	Meets 4 or 5 of the ETC Criteria <b>or</b> in an area with > 18% of households identified as Zero Car Households	100%	15%	Based on the US DOT ETC Equitable Transportation data, as modified by MetroPlan Orlando for the Equity Plan.
	Meets 2 or 3 of the ETC Criteria <b>or</b> in an area with ≥ 12% of households identified as Zero Car Households	75%		
	Meets 1 of the ETC Criteria <b>or</b> in an area with ≥ 6. 3% of households identified as Zero Car Households	50%		
Bicycle and Pedestrian Safety <sup>2</sup>	More than 5 crashes involving a person walking or biking <b>or</b> any pedestrian / bicycle fatalities	100%	30%	Pedestrian / Bicycle Crashes and Fatalities (2018 – 2022); Source Signal Four Analytics
	4 - 5 bike/ped crashes	75%		
	2 - 3 bike/ped crashes	50%		
	1 bike/ped crash	25%		
Accessibility and Connectivity <sup>3</sup>	Percent improvement in walking access to destinations		6.25%	Using the PLOC1, LTS2 and Accessibility Analysis; Project with the most gains receives 100% of criteria, with the score for the remainder of the projects prorated.
	High improvement	100% <sup>4</sup>		
	Medium improvement	66% <sup>4</sup>		
	Low improvement	33% <sup>4</sup>		
	Percent improvement in biking access to destinations.		6.25%	
	High improvement	100% <sup>4</sup>		
	Medium improvement	66% <sup>4</sup>		
	Low improvement	33% <sup>4</sup>		
	Number of people for whom access is improved for walking trips.		6.25%	
High improvement	100% <sup>4</sup>			
Medium improvement	66% <sup>4</sup>			
Low improvement	33% <sup>4</sup>			



Goal Area	Potential Evaluation Criteria	Criteria Scoring	Criteria Weighting	Notes / Data Source		
Comfort <sup>5,6</sup>	Number of people for whom access is improved for biking trips.					
	High improvement	100% <sup>4</sup>	6.25%			
	Medium improvement	66% <sup>4</sup>				
	Low improvement	33% <sup>4</sup>				
	New or improved PLOC for a walking facility					
	High Comfort Anticipated	100%	5%			
	Medium Comfort Anticipated	75%				
	Low Comfort Anticipated	50%				
	New or improved LTS for a biking facility					
	High Comfort Anticipated	100%	5%			
	Medium Comfort Anticipated	75%				
	Low Comfort Anticipated	50%				
New or improved PLOC for a walking facility						
High Comfort Anticipated	100%	5%	Using the PLOC1 and LTS2 Analysis			
Medium Comfort Anticipated	75%					
Low Comfort Anticipated	50%					
New or improved LTS for a biking facility						
High Comfort Anticipated	100%	5%				
Medium Comfort Anticipated	75%					
Low Comfort Anticipated	50%					
Jurisdictional Significance <sup>7&amp;8</sup>	Qualitative low/medium/high ranking by local jurisdiction on the proposed project's local significance					
	High Jurisdictional Priority	100% <sup>7</sup>		10%	Qualitative score to incorporate local preferences	
	Medium Jurisdictional Priority	66% <sup>7</sup>				
	Low Jurisdictional Priority	33% <sup>7</sup>				
Regional Impact <sup>8</sup>	Facility eligible for inclusion in the SunTrail or Coast to Coast Network	100%		10%	Qualitative score to incorporate regional/statewide significance	

Notes: 1. Based on US DOT Transportation Disadvantaged Areas, as modified by MetroPlan Orlando for the Regional Equity Profile. 2. Pedestrian / Bicycle Crashes and Fatalities (2018 - 2022); Source Signal Four Analytics; 3. Based on the Pedestrian Level of Comfort (PLOC), Level of Traffic Stress (LTS) and Accessibility Analysis; 4. Based on the relative improvement of access and the relative number of people for whom access was improved, the top third of projects were allocated 100% of points, with 66% and 33% of points being allocated to the middle and bottom third, respectively. 5. Based on the PLOC and LTS Analysis; 6. Based on distribution of relative improvements for each facility. Improvement from LTS 4 to LTS 1 would receive 100% of available points; 7. Qualitative score to incorporate local preferences; to be assigned as part of a separate process. 8. These scores to be assigned as part of a separate process



## Prioritized Needs List

The prioritization criteria were then applied to the 2050 Project List to identify project priorities. The top 20 projects, along with descriptions of the projects are shown in **Table 12**, with the full list provided in the **Appendix D**.

**Table 12: Preliminary Top Ranked Active Transportation Needs List**

ATP Preliminary Priority Score	ATP ID#	Needs Type	Road Name	From	To	Jurisdiction
63.8	8.04	Trail Segment	Trail along Clarcona-Ocoee Rd	Pine Hills Rd	US 441/Orange Blossom Trl	Orange County
63.3	1.46	Corridor Improvement - Safety Focus	Ivey Ln	SR 526/Old Winter Garden Rd	Columbia St	Orlando, Orange County
62.4	1.27	Corridor Improvement - Safety Focus	Americana Blvd	John Young Pkwy	Texas Ave	Orange County
61.6	1.48	Corridor Bike/Ped Safety Project - Enhance Already Planned Project	SR 423/John Young Pkwy	SR 50/Colonial Dr	Church St	Orlando, Orange County
59.9	4.07	Bike Lane Modification - Enhance Already Planned Project	SR 535/S. Apopka Vineland Rd	US 192	SR 536/World Center Dr	Orlando, Orange County
59.9	4.49	Bike Lane Modification - Enhance Already Planned Project	Sand Lake Rd	Kirkman Rd	John Young Pkwy	Orlando, Orange County
59.9	5.12	Bike Lane Modification - Enhance Already Planned Project	SR 535/S Apopka Vineland Rd	International Drive	US 192/W Irlo Bronson Memorial Hwy	Orlando, Orange County
59.6	1.47	Corridor Improvement - Safety Focus	SR 526/Old Winter Garden Rd	Powers Dr	Ivey Ln	Orlando, Orange County
59.5	8.09	Corridor Improvement - Add/Widen Sidewalk/Shared Use Path/Bike Lane	Nashville Ave	45th St	W Miller Ave	Orlando, Orange County
59.5	1.06	Corridor Bike/Ped Safety Project - Enhance Already Planned Project	US 441/N Main St	US 192	Osceola Pkwy	Kissimmee, Osceola County
59.5	4.09	Bike Lane Modification - Enhance Already Planned Project	US 17/92 / John Young Pkwy	Pleasant Hill Rd	Portage St	Osceola County



ATP Preliminary Priority Score	ATP ID#	Needs Type	Road Name	From	To	Jurisdiction
59.5	4.19	Bike Lane Modification	US 441/N Main St	US 192/Vine St	Osceola Pkwy	Kissimmee, Osceola County
59.5	5.18	Bike Lane Modification - Enhance Already Planned Project	US 441/Orange Blossom Trl	SR 50/Colonial Dr	SR 414/Maitland Blvd	Orange County, Orange County
57.9	1.57	Corridor Improvement - Safety Focus	SR 414/Maitland Blvd	Rose Ave	Magnolia Homes Rd	Orange and Seminole Counties
57.8	5.19	Corridor Improvement - Add/Widen Sidewalk/Shared Use Path/Bike Lane	SR 423/John Young Pkwy	SR 408	Shader Rd	Orlando, Orange County
57.5	1.38	Corridor Bike/Ped Safety Project - Enhance Already Planned Project	SR 551/Goldenrod Rd	SR 50/Colonial Dr	University Boulevard	Orange County, Orange County
57.4	1.15	Corridor Bike/Ped Safety Project - Enhance Already Planned Project	SR 50/Colonial Dr	Pine Hills Rd	Highland Ave	Orlando, Orange County
57.4	4.71	Corridor Improvement - Add/Widen Sidewalk/Shared Use Path/Bike Lane	John Young Pkwy	SR 482/Sand Lake Rd	Hunters Creek Blvd	Orange County
57.4	4.74	Corridor Improvement - Add/Widen Sidewalk/Shared Use Path/Bike Lane	SR 435/Kirkman Rd	SR 526/Old Winter Garden Rd	SR 50/Colonial Dr	Orange County
55.8	1.32	Corridor Bike/Ped Safety Project - Enhance Already Planned Project	SR 551/Goldenrod Rd	Beatty Dr	Pershing Ave	Orange County, Orange County
55.8	1.04	Corridor Bike/Ped Safety Project	US 192/Vine St	Bamboo Lane	Main Street	Kissimmee, Osceola County
55.8	1.24	Corridor Improvement - Safety Focus	Lancaster Rd	US 17/92/441 / Orange Blossom Trl	Calypso Dr	Orange County
55.8	4.21	Bike Lane Modification - Enhance Already Planned Project	US 192/Vine St	Hoagland Blvd	John Young Pkwy	Kissimmee, Osceola County

Source: Fehr & Peers, 2024



# Active Transportation Policy

In addition to the infrastructure recommendations, a series of policy recommendations were developed to guide future active transportation projects and other infrastructure improvements throughout the region in support of the goals of the Active Transportation Plan.

## Review of Existing Policies

Relevant plans and policies from the three counties, incorporated cities and towns, and the Florida Department of Transportation (FDOT) were reviewed to identify potential barriers to plan implementation and identify policy guidance that could be incorporated into the ATP, with a detailed analysis provided in **Appendix A: Existing Conditions**.

- Insufficient staffing resources to implement projects identified within their jurisdiction.
- Land development codes that may miss opportunities to require new bicycle and pedestrian facilities to be constructed as part of development.
- Technology changes that are not considered in local planning documents, such as e-scooters and e-bikes.

Overall, MetroPlan Orlando member jurisdictions have goals and policies that are supportive of active transportation facilities within the region. However, some potential barriers were identified that could hinder the implementation of the Active Transportation Plan: Ride & Stride 2050 equally throughout the region, including the following:

- Some communities with vehicle delay-based level of service policies that do not have exceptions for prioritizing bicycle and pedestrian travel along some corridors.
- Lack of supportive regulations that require new developments to provide bicycle parking and other design features that could promote higher levels of walking, bicycling, and transit ridership over time.



Active transportation count programs



## Policy Recommendations

To help overcome some of these barriers, policy language related to ADA Compliance, Active Transportation Count Programs, Micromobility Regulations, and Bicycle Facility Selection were prepared, based on a detailed assessment provided as **Appendix H: Policy Recommendations**.

**ADA Policy** – The Americans with Disabilities Act (ADA) and the Public Right-of-Way Accessibility Guidelines (PROWAG) regulate construction within the public environment so that buildings and transportation facilities are accessible to people with disabilities. However, creating a transportation system that is accessible to those with disabilities is more than just a legal requirement. A primary goal of the plan is to go beyond the ADA and PROWAG minimum requirements, relying on experts, to develop a system that is accessible to all. Key elements of ADA accessibility include directional curb ramps with truncated domes, continuous sidewalks, transit stop connections, including protected crossings, and accessible pedestrian signals.

**Active Transportation User Count Program** – Collecting bicycle and pedestrian counts has many benefits including measuring the effectiveness of bicycle and pedestrian projects, providing data on how trails are being used, offering information to plan for and accommodate growth, etc. The policy guidance offers recommendations on what type of information to collect and how to publicly report it, including MetroPlan Orlando providing a centralized database for jurisdictions to report data.

**Micromobility** – Micromobility refers to a range of individual-use, light-weight vehicles typically operating at speeds below 15 miles per hour, but no greater than 28 miles per hour. Micromobility devices include, but are not limited to bicycles, e-bikes, e-scooters, e-skateboards, and shared bicycle fleets. The regulations surrounding micromobility devices in the MetroPlan Orlando region vary widely by jurisdiction, and many do not have any micromobility regulations. The policy recommendations provide suggestions for regulating both individual and shared devices.

**Bikeway Selection** – Choosing a bicycle facility that is appropriate for the roadway and land use context is important for encouraging people to use the facility and for the safety of those who use it. The policies include recommendations related to choosing an appropriate facility and continuing bicycle facilities through intersections. The bikeway selection guidance follows guidance from the FHWA's Bikeway Selection Guide as well as the FDOT Design Manual and incorporates best practices from the National Association of City Transportation Officials (NACTO) related to intersection treatments. Considerations for potential facility upgrades that could occur as part of a Resurfacing, Restoration and Rehabilitation (RRR) project are also highlighted as opportunities to improve bicycling comfort.